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ELBERTA
PEACHES
(Reduced)

*Ours
Are
Equal
to
the
Best*

WEALTHY APPLES
(Reduced)

Illustrated
&
Descriptive
Fruit Book
for 1914

**William Street
Nurseries
Geneva, N.Y., U.S.A.**

WHOLESALE & RETAIL & GROWERS & IMPORTERS

1914

Guaranteed Nursery Stock

1914

Sold Direct From Grower to Planter

We take pleasure in presenting herewith the latest edition of our General Descriptive Fruit and Ornamental Book and Price list, describing and pricing the various fruit trees, vines, shrubs, roses, etc., grown and for sale in our Nurseries. We extend to our many patrons our sincere thanks for their liberal patronage, and hope that we may continue to receive their valued orders.

NOTE OUR SELECTIONS

This year we make some big price reductions on stock when purchased in collections. You have a wide choice to pick from—in fruits and ornamentals. No changes in selections are possible, as all collections are made up at one time. This saves us time and money—therefore, the reduced rates allowed. You will find collections on page 3.

GET THESE FREE PREMIUMS

With all orders amounting to \$5.00, we give absolutely free 50 cents worth of nursery stock. For \$10.00 orders, we give \$1.20 worth of nursery stock. For \$15.00 orders we give \$2.25 worth of nursery stock. For \$20.00 orders we give \$4.00 worth of nursery stock. These free premiums are given to introduce our goods. You can pick out the stock you want for your premium. We don't limit you to one or more varieties. Get your friends to order with you to make the entire order equal one of these sums and we will send you the premium.

HOW TO SEND ORDERS

Make out your order on blank next to back cover. Additional order blanks will be sent if desired. Follow instructions carefully at top of order blank. Write as plainly as possible the size, name, number and catalog price, giving P. O., R. F. D., if any, and nearest freight station.

TERMS OF PAYMENT

Our terms are strictly cash before stock is shipped. In this way everyone is treated alike. Besides, we incur no bad debts and therefore are able to sell at such low prices. All orders must be accompanied by a bank draft, P. O. or Express Money Order, or currency in a registered letter for full amount of order.

SEND IN YOUR ORDER EARLY

Orders should be sent in early. They are shipped in the order received that is "first come, first served." Order early and you get your stock early. If grounds is not in condition to plant, stock can be left in boxes. If taken out, cover it with earth.

Note These References

First National Bank

Geneva National Bank

R. G. Dun & Company

Bradstreet Company

American Express Co.

United States Express Co.

or any responsible business firm in
Geneva

We Prepay Freight

On all orders amounting to \$5.00 or more, we will prepay freight to any and all points east of Mississippi River, Canadian shipments not included. Get your friends to order with you to make the entire order total \$5.00. Then you'll save freight for both and win a premium for yourself besides. No extra charge for two orders in one shipment to one point.

William Street Nurseries, Geneva, N. Y.

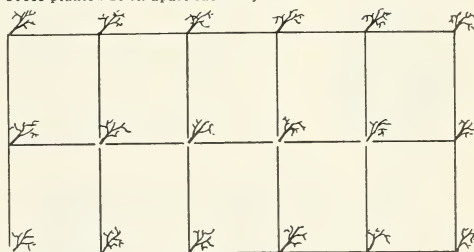


DISTANCE FOR PLANTING

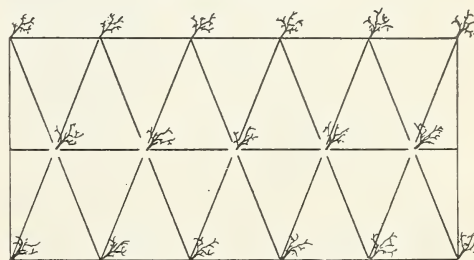
Apples, Standard	30 to 40 ft.
Apples, Dwarf	8 to 10 ft.
Pears, Standard	18 to 20 ft.
Pears, Dwarf	10 ft.
Peaches	16 to 18 ft.
Nectarines and Apricots	16 to 18 ft.
Cherries, Sweet	18 to 20 ft.
Cherries, Sour	15 to 18 ft.
Plums	16 to 20 ft.
Quinces	10 to 12 ft.
Grapes	8 by 10 ft.
Currants	3 by 5 ft.
Gooseberries	3 by 5 ft.
Raspberries, Red	3 by 6 ft.
Raspberries, Black	3 by 6 ft.
Blackberries	5 by 7 ft.
Strawberries, rows	1 by 3 1/2 ft.
Strawberries, in beds	1 1/2 by 1 1/2 ft.
Asparagus, in beds	1 by 1 1/2 ft.
Asparagus, in field	1 by 3 ft.

trees are equally distant, but in the triangular method the trees in the center rows are opposite the open spaces in the top and bottom rows, and because of this fact the center row can be planted closer to the top and bottom rows, and at the same time all trees will be the required distance apart. This method also permits of the cultivation in three directions instead of two, as in the old way. Lastly, it accommodates a greater number of trees to the acre, which is explained in the following table.

	Old or Square Method Trees to an Acre	New or Triangle Method Trees to an Acre
Trees planted 30 ft. apart each way	49	58
Trees planted 24 ft. apart each way	74	90
Trees planted 20 ft. apart each way	108	128



Square Method.



Triangle Method.

TREES AND PLANTS TO THE ACRE

2 feet each way	10,890
3 feet each way	4,840
4 feet each way	2,723
5 feet each way	1,742
6 feet each way	1,210
8 feet each way	680
10 feet each way	430
12 feet each way	302
15 feet each way	194
18 feet each way	135
20 feet each way	110
25 feet each way	70
30 feet each way	48
33 feet each way	40
40 feet each way	28

To estimate the number of plants required for an acre, at any given distance, multiply the distance between the rows by the distance between the plants, which will give the number of square feet allotted to each plant, and divide the number of square feet in an acre (43,560) by this number, the quotient will be the number of plants required.

HOW TO SET OUT AN ORCHARD

There are two ways to lay out an orchard: First, the old method of planting in squares, which is the one so generally used in the past; and second, the new triangular method (recommended by Prof. J. E. Wickson and others), which is far better. By the old method trees were planted on the four corners of a square; by the triangular method the trees are planted on the three corners of an equal-sided triangle, and are so placed that the trees of any rows are opposite the open spaces of the two rows adjoining it. By referring to the illustration on this page it will be seen that in both methods the

trees are equally distant, but in the triangular method the trees in the center rows are opposite the open spaces in the top and bottom rows, and because of this fact the center row can be planted closer to the top and bottom rows, and at the same time all trees will be the required distance apart. This method also permits of the cultivation in three directions instead of two, as in the old way. Lastly, it accommodates a greater number of trees to the acre, which is explained in the following table.

AGE FOR BEARING

Apples, Standard	4 to 5 yrs.
Apples, Crab	2 to 3 yrs.
Pears, Standard	3 to 4 yrs.
Pears, Dwarf	2 yrs.
Cherries	3 to 4 yrs.
Peaches	2 and 3 yrs.
Plums	3 to 4 yrs.
Currants	2 yrs.
Grapes	2 yrs.
Quinces	3 to 4 yrs.
Blackberries	2 yrs.
Gooseberries	2 yrs.
Raspberries	2 yrs.
Roses usually bloom	season after planting.

"Don't let another year pass before you start a life income by planting a Fruit Orchard"



TRANSPLANTING TREES AND SHRUBS

Preparing the Trees—In removing the tree in the nursery row, no matter how carefully the work is done, a portion of the roots are broken and the balance that existed in the tree is destroyed. To make up for this, remove the broken or mutilated portions so as to leave the ends round and smooth. Never plant a tree exactly as it is received from the nursery until it has been thoroughly examined and the necessary pruning done. Proper pruning is determined by the size, form and condition of the tree.

Dwarf Trees—Trees of two or three years' growth and having a number of side branches should be pruned with an eye to the growth and the form desired. Cut the branches into the form of a pyramid by shortening the lower ones about one-half, those in the middle still shorter and the uppermost ones to within three or four buds of their base. The leader should be cut back about one-half. Closer pruning is needed on trees that have been dried or injured by exposure.

Yearling Trees Intended for Pyramids—Cut away the smallest side branches if there are any, keeping the strongest and best placed. Those having no side branches should be cut back far enough to assure the production of branches within a foot of the ground. A strong yearling about four to six feet in height may be cut back about half, weaker ones more than that. Cut too low rather than not low enough.

Preparing the Soil—Fruit trees flourish best in a naturally dry soil; too much moisture retards growth. Plow at least twice, following the common plow the second time with the subsoil plow. Fresh lands will not need manure or fertilizers, but lands exhausted through constant cropping should be fertilized either by turning under clover or well decomposed manure or compost. Land that is in good condition for wheat, corn or potatoes will be well adapted to fruit trees.

Planting—Dig the hole larger than is necessary to admit all the roots in their natural position, keeping the surface soil and subsoil separate. Have the tree held in an upright position while the earth is shovelled in, the best soil being sifted in among the roots. Make sure that all the roots come in contact with the soil. When the earth is nearly filled in, pour in water to wash the soil around the roots; then fill up the remainder and tread down gently

with the foot. It is only necessary to use water in dry weather.

Don't plant too deep; the trees should stand about the way they did in the nursery. Trees on dwarf stock should be planted so that all the stock is below the ground, only the graft appearing above the surface.

Staking—Extra tall trees or those much exposed to the wind should be supported by a stake. Take care that no chafing of the tender bark occurs.

Mulching—After the tree is set, cover the ground within a radius of two or three feet with five or six inches of manure or litter. This mulching is necessary in dry ground and is good practice in spring and fall planting.

Pruning—All fruit trees require more or less pruning from year to year. While the tree is young the head should be formed, and unnecessary branches taken out. The best time to prune is late in the winter or in early spring, when no more severe weather is anticipated.

Carrying Stock through the Winter—The practice of procuring supplies of trees in the fall is becoming more and more general. It is a more favorable time than spring, because the stock has just entered into dormant condition.

To insure success you have only to get the trees before freezing weather, and bury them in the following manner. Choose a dry spot where no water will stand during the winter, with no grass near it to invite mice. Dig a trench, throwing out enough dirt to admit one layer of roots below the surface; and place the trees in it, inclined at an angle of forty-five degrees or more. Widen the trench, throwing the soil among the roots in position, place another layer in the trench, reclining the tops on the others, and so on until all are in the trench; then finish by throwing up more soil until the tips of the trees are nearly or quite covered.

Care of Stock Injured by Frost or Long Exposure—Place the unopened packages in a cellar or any cool place that is free from frost. Leave them there until the stock is thawed out. It can then be unpacked and planted or "heeled in."

If dried out from long exposure, bury in the ground, or soak in water from 12 to 24 hours. Prune such stock more closely than ordinarily.

Spraying on pages—49, 50, 51, 52, 53, 54, 55

WE PAY FREIGHT ON \$5.00 ORDERS

To any point east of Mississippi River, except Canada. This saves you money and worry. Please note also the free premiums of nursery stock given on orders amounting to \$5, \$10, \$15 and \$20. Have your neighbors order with you to save freight and earn a premium. The one who sends the order gets the premium.



Our Valuable Collection of Trees and Plants for the Home Garden

Special Selected Garden Collection No. 1



12 Trees, 2 Year, 5 to 6 feet high for \$2.75

Apples—1 Wealthy, 1 Baldwin, Pears—1 Bartlett, 1 Clapp's Favorite, Peaches—1 Niagara, 1 Elberta, Plums—1 Burbank, 1 York State, Cherries—1 Montmorency, 1 Bing, 1 Orange Quince, 1 Alexis Apricot. All trees strictly first-class, 2 years old, 5 to 6 ft., \$2.75.

Special Apple Tree Collection No. 3

10 Trees, 5 to 6 ft., \$1.45

1 McIntosh 1 Wealthy
1 Baldwin 1 Banana
1 Yel. Transp. 1 Wagener
1 Duchess 1 York Imperial
1 King 1 Hub. Non.

All strictly first-class trees, 2 year, 5 to 6 feet high.

10 APPLE TREES

Wholesale Bargain Price, \$1.45



Special Plum Tree Collection No. 5



10 Trees, 5 to 6 ft. for \$1.85

1 Red June 2 Burbank
1 Geuii 1 York State
1 Monarch 2 Lombard
2 Grand Duke
1 Abundance

All strictly first class trees, 2 year, 5 to 6 feet

10 Plum Trees

Wholesale Bargain Price, \$1.85

Special Rose Collection No. 7

10 Rose Bushes, 2 year, \$1.75

2 Paul Neyron 1 Gen. Jackson
1 Mrs. J. Laing 1 M. P. Wilder
1 Dorothy Perkins
1 Margaret Dickson
2 Coquette des Alps
1 Crimson Rambler

All strictly first class 2 year old bushes.

10 Rose Bushes

Wholesale Bargain Price, \$1.75



Special Currant Collection No. 9



10 Strong 2 year Bushes for 65c

3 Red Cross
3 Wilder (Red)
2 White Grape
2 Black Champion

10 strong 2 year bushes

Wholesale Bargain Price, 65c.

Special Peach Tree Collection No. 2



10 Trees, 4 to 5 ft., for 98c

2 Elberta 2 Carman
2 Niagara 2 Late Crawford
2 Early Crawford

All strictly first-class, largest size trees 4 to 5 feet high.

10 Peach Trees

Wholesale Bargain Price, 98c

Special Grape Collection No. 4

10 Strong, 2 Year Vines for 75c

2 Worden 2 Concord
1 Campbell's Early 2 Niagara
1 Delaware 2 Brighton

All strictly first-class, 2 year.

10 Vines, Wholesale Bargain Price, 75c.



Special Cherry Tree Collection No. 6



10 Trees, 5 to 6 feet high for \$1.95

2 Montmorency 2 Baldwin
2 Early Richmond 1 Napoleon
2 English Morello 1 Bing

All strictly first class, 2 year, 5 to 6 feet high.

10 Cherry Trees

Wholesale Bargain Price, \$1.95

Special Pear Tree Collection No. 8

6 Trees, 5 to 6 ft. high, \$1.25

1 Bartlett 1 Clapp's Favorite
1 Anjou 1 Kieffer
1 Flemish Beauty
1 Seckel

All strictly first class, 2 year trees 5 to 6 ft. high.

6 Pear Trees

Wholesale Bargain Price

\$1.25



Special Blackberry Collection No. 10

24 Strong Plants for 95c

6 Eldorado 6 Lawton
6 Snyder
6 Mersereau

All strictly first class plants
24 in all

Wholesale Bargain Price, 95c



When ordering these Wholesale Bargain Collections please order by number. All should take advantage of these Special Collections.



NO OTHER fruit succeeds over so wide a range of territory and under such diversified climatic conditions, and no other fruit brings so sure a return to the grower in proportion to time and money expended upon its production. With proper selection of varieties, location of soil, and subsequent intelligent management, there can be but little risk in planting the apple, which is no longer a luxury but a staple article of food. The apple has few rivals among cultivated fruits. Its mild and pleasant acid is a panacea for many of the ills that the human race is heir to. What fruit can be more pleasant to the palate or more beautiful to the eye than the rich ripe apple when plucked fresh from the tree, or what more luscious and healthful when cooked? Who does not remember with extreme delight the delicious baked apples served with sugar and cream or the apple dumpling or apple pie "that mother used to make?"

Select an elevated site for any kind of orchard in preference to low ground, unless the low ground is located near a large body of water, which protects it from frost. In planting an apple or other orchard the best method is to mark out the land with an ordinary corn marker, the same as for planting corn; then locate the trees in every fifth row, if that is the distance you desire. In this way your trees will form rows from every point of view, without any trouble in sighting or staking sticks.

PRICES OF APPLES AND CRABS

	Each	Per 10	Per 100
Largest size, XXX, 5 to 7 ft.	\$0.25	\$2.25	\$18.00
Medium size, XX, 4½ to 6 ft. ....	.20	1.50	12.50
Smaller size, X, 3 to 4 ft. ....	.15	1.25	9.00

SUMMER APPLES

Early Harvest—Medium size; pale yellow, with a mild fine flavor and popular as a dessert and cooking Apple. Ripens early and is long in season. Very productive. Middle to end of August.

Early Strawberry (Red Strawberry)—Good bearer, fruit medium size, mostly covered with deep red. Tender, mild flavor. Middle to end of August.

Golden Sweet—Large, round, light straw color; medium quality; tree in the nursery a crooked grower. August and September.

Red Astrachan—Tree hardy and regular bearer. Fruit large, roundish, crimson; first rate quality. Very early. July and August.

Sweet Bough—Large, pale yellow, tender and sweet; a desirable eating Apple; productive. August.

Yellow Transparent—Very early Russian Apple; good quality and of decided merit. Color when ripe pale yellow. Earliest of all Apples, of a mild, pleasant yet sprightly flavor. It bears abundantly and at an extremely early age. Three year tree in the nursery rows frequently produce fine fruit. It should be in every home garden.

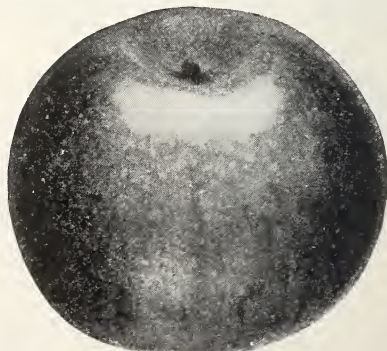
AUTUMN APPLES

Alexander—A Russian Apple; very large, deep red or crimson; extremely hardy. Ripens September and October.

Duchess of Oldenburg—A Russian Apple; medium to large size; skin yellow streaked with red; flesh white, juicy and slightly sub-acid, ripening in fall. Vigorous grower, bears abundantly when young; very hardy. Is valuable in extreme North or South. September.

Fall Pippin (Pound Pippin)—Very large, yellow, tender, juicy and rich. Fine in all localities; tree vigorous. September and October.

Fameuse (Snow)—Medium size, roundish, very handsome, deep crimson; flesh snowy-white, tender, juicy, high flavored and delicious. Does well in the North. Valuable for market. Nov. to Jan.



York Imperial (Reduced)

Gravenstein—Large, striped and beautiful; tender, juicy and high flavored; very productive. September to October.

Maiden's Blush—Medium size, flat, quite smooth and fair; pale yellow with beautiful red cheek. Tender, sprightly, pleasant acid flavor. Tree vigorous and productive. Good market variety. Sept. to Oct.

Pumpkin Sweet—Large, round, russet Apple, sweet and crisp. Vigorous, rapid, upright grower. September to November.

Red Bietigheimer—German variety. Fruit large, pale green color. Flesh white, sub-acid. Abundant bearer. Early fall. Sept.

St. Lawrence—Large, yellowish, striped with red. Flesh is white and of good quality. Valuable in Canada and Northern States. October.

WINTER APPLES

Baldwin—Large, roundish, deep bright red; juicy, crisp, sub-acid. Tree vigorous, upright and very productive. Very popular in most of the Northern States and Canada. January to April.

Ben Davis (New York Pippin), (Kentucky Streak), etc.—Large, roundish, yellow. Striped and of good quality; late keeper. Highly esteemed in West and Southwest. December to March.

Bismarck—Originated in New Zealand; tree short; stocky; fruit large, handsome, yellow overspread with crimson. Good keeper. October to January.

Gano—Originated in Missouri. Fruit good size and smooth; deep red, shaded on sunny side to mahogany; very attractive. Flesh pale yellow, fine grain; tender, pleasant, mild, sub-acid. Excellent shipper and keeper. Tree healthy, vigorous and hardy; annual and productive bearer. Jan. to May.

Golden Russet—Medium size; very tender, juicy and rich. Vigorous grower, good bearer; hardy and very popular. November to April.

Grimes Golden—Medium; rich golden yellow; tender, juicy and rich. Thrifty, upright grower; early bearer; tree hardy. November to April.

Hubbardston Nonsuch—Large, striped yellow and red. Flesh yellow, juicy and tender. Finest quality and very valuable. Strong grower, bears regularly. November to January.

Jonathan—Medium size. Fruit red; flesh tender and juicy. Productive. November to March.

King (King of Tompkins County)—Large, red. Flesh rather coarse, juicy, tender, with a rich flavor. Very valuable market Apple; one of the best. Abundant annual bearer. December to March.

Longfield—Hardy Russian Apple; early bearer; fruit medium. Flesh rich, sub-acid. December to March.

Mammoth Black Twig—One of the most profitable and valuable varieties. Resembles Winesap, only a third larger. December to April.

Mann—Medium to large; deep yellow with brownish-red side. Flesh yellowish, juicy, mild, sub-acid. January to June.

McIntosh Red—Hardy Canadian Apple. Medium, nearly covered with dark red; flesh white, fine, tender, juicy. Good annual bearer. November to February.

North Western Greening—Originated in Wisconsin. Tree straight, thrifty grower, very hardy. Early and annual bearer. Fruit large, smooth, yellowish-green. Very attractive and desirable. November to May.

Northern Spy—Large, roundish, ribbed, speckled and covered with crimson. Flesh white, tender, mild sub-acid flavor. Tree should be kept pruned. December to June.



Perfect (Reduced)

Perfect—We control this variety and consider it a remarkably fine one. The blow end suggests the Baldwin, but the flavor is more like the Spy. There is one fact certain, that is density, weight and suitable skin, there is no better variety for shipping. We certainly advise growers to plant the Perfect exclusively. December to March.

Pewaukee—Medium, round, bright yellow, striped with red; juicy, sub-acid. Strong grower, hardy; valuable North and South. January to May.

Rhode Island Greening—Large, roundish, greenish yellow; tender, rich and juicy. Vigorous grower. November to March.



Spitzenburg

Peerless — Originated in Minnesota. Quality of the fruit is excellent. For a severe climate, where we require hardy, blight-proof and productive trees, the apple that most nearly meets this requirement is the Peerless.

Rome Beauty—Large, yellow and bright red; medium quality; moderate grower; good bearer. December to May.

Roxbury Russet (Boston Russet)—Large greenish yellow, covered with bright russet; moderately juicy, sub-acid. January to June.

Spitzenburg—Medium, deep red; flesh yellow, sub-acid. Poor grower. November to April.

Stark—Esteemed as a long keeper and valuable market variety. Fruit large, roundish; skin greenish yellow. Shaded from light to dark red. Flesh yellowish, juicy and mild, sub-acid. January to May.

Stayman's Winesap—Medium, yellowish-green; flesh tinged with yellow; tender, juicy, sub-acid. December to May.

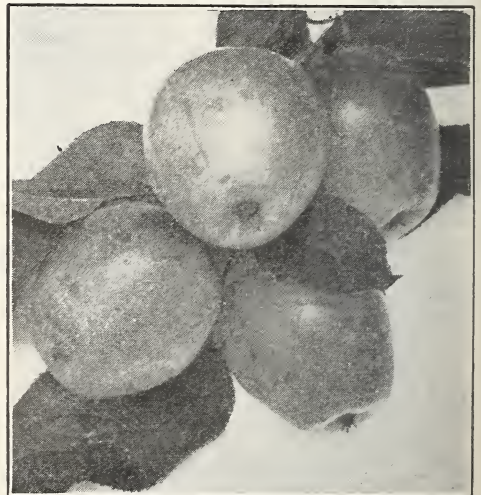
Sutton Beauty—Large, roundish; skin waxen-yellow, striped with crimson. Flesh tender, sub-acid. Good quality and remarkable keeper. Tree vigorous grower; very productive. Valuable market variety. December and January.

Talman Sweet—Medium, pale yellow, fine grained; very sweet. Hardy and productive. November to April.

Wagener—Medium, roundish; deep red in the sun; flesh firm, sub-acid and excellent. Tree very vigorous and productive; bears very young. November to February.

Wealthy — Originated in Minnesota. Hardy, vigorous and very productive. Fruit large, yellow shaded with red. Flesh white stained with red; juicy and sub-acid. Does well in nearly all sections. Most desirable fall and early winter variety. Extremely hardy. October to February.

York Imperial (Johnson's Fine Winter) —A native of York County, Pa. Medium to large, white, heavily shaded with dark crimson; flesh firm, crisp, juicy and sub-acid. Tree an early and abundant bearer. December to February.



Stark

Select Varieties of Crab Apples



Hyslop Crab Apples

As an ornamental fruit, and for jellies and preserving, the crab apple is unequalled. All are very hardy and prolific, come into bearing when very young, and command a ready and profitable market. We name the best sorts.

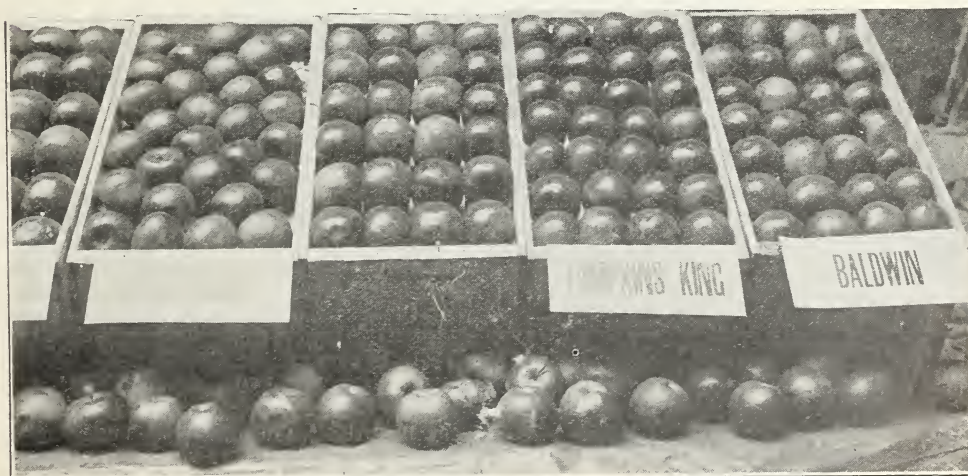
Transcendent—A beautiful variety of the Siberian Crab; red and yellow. Tree a remarkably strong grower. September.

Hyslop's—Almost as large as the Early Strawberry Apple; deep crimson; very popular in the West on account of its large

size, beauty, and hardiness. Tree remarkably vigorous. October.

General Grant—Large, round, yellow, covered with stripes of red, and when exposed to the sun, turning quite dark; flesh white, fine grained, a good grower, hardy and productive.

Whitney—Large, averaging one and a half to two inches in diameter; skin smooth, glossy green, striped, splashed with carmine; flesh firm, juicy and flavor very pleasant.



Big Profits in Apples When Selected, Boxed and Sold at High Prices



PEARs do best in a strong loam, but succeed well in a variety of soils and on almost any land that will produce good vegetables or grain. There is always a greater demand than supply of Pears of all varieties. Bartlett is, of course, the leading Pear and calls for the highest price in the market. By a careful selection of varieties the Pear season can be extended from July to February. Pear growing has been checked until lately by blight, which has affected this kind of tree, but this condition need not exist in the future. Dr. Waite, a practical Pear specialist, who has done much for the industry in the West, has shown that this blight can be controlled. Bulletins on this subject may be secured from the Department of Agriculture at Washington.

ORDER OF RIPENING IN PEARS

Varieties of Pears we offer ripen in the following order: Koonce, Clapp's Favorite, Bartlett, Seckel, Flemish Beauty, Sheldon, Worden-Seckel, Anjou, Duchess, Kieffer and Lawrence.

Following is a list of the best known varieties of Pears and prices of each:

PRICES OF STANDARD PEARS

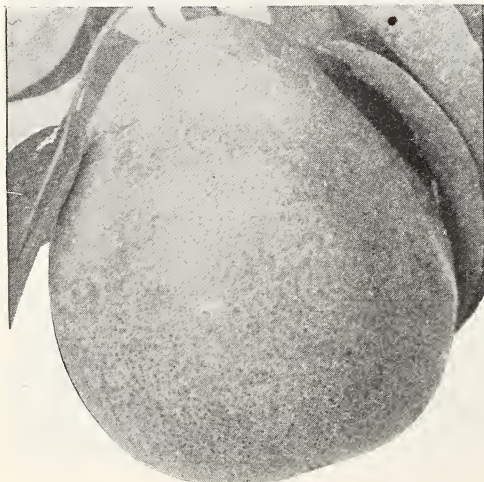
Except Bartlett, Bosc and Clairgeau.

	Each	Per 10	Per 100
Largest size, XXX, 5 to 7 ft.....	\$0.30	\$2.75	\$25.00
Medium size, XX, 4½ to 6 ft.....	.25	2.00	18.00
Smaller size, X, 3 to 4 ft.....	.15	1.35	12.50

BARTLETT, BOSC AND CLAIRGEAU

	Each	Per 10	Per 100
Largest size, XXX, 5 to 7 ft.....	\$0.40	\$3.50	\$30.00
Medium size, XX, 4½ to 6 ft.....	.30	2.75	25.00
Smaller size, X, 3 to 4 ft.....	.20	1.75	15.00

Bartlett—One of the popular Pears. Large, irregular in form; clear yellow with often a beautiful blush next to the sun.



Bartlett

Very juicy and highly flavored. Tree a strong grower; bears abundantly. Very popular. Middle to last of September.

Clapp's Favorite—Large; pale lemon-yellow, fine grained, juicy, melting, rich and buttery. Earlier than Bartlett. Very hardy. Good grower and very productive. In season during August and September. Fruit should be picked ten days before it would ripen on the trees.

Koonce—Medium to large, pyriform, very handsome; yellow, one side covered with bright carmine, sprinkled with brown dots; flesh juicy, sweet, spicy, good. Ripens with the earliest. Tree a remarkably strong grower; hardy and very productive. Middle of August.

Manning's Elizabeth—Small to medium; bears in clusters; crimson and gold color, very beautiful; melting, rich, sugary; excellent. Tree a good grower and very productive. One of the very best early pears. August.



Rossney—A new seedling pear from Utah; size medium to large; color light yellowish, with crimson blush; flesh fine grained, melting, juicy, sweet and rich; an excellent keeper and a good shipper. The tree is a good grower and healthy, comes into bearing young and is very productive. Ripens about two weeks after Bartlett, when there are few good pears in season. September first.

Wilder Early—Small to medium, yellow, shaded carmine, fine grained, tender, sub-acid. Vigorous grower, early and annual bearer, very productive, good quality. Early August.

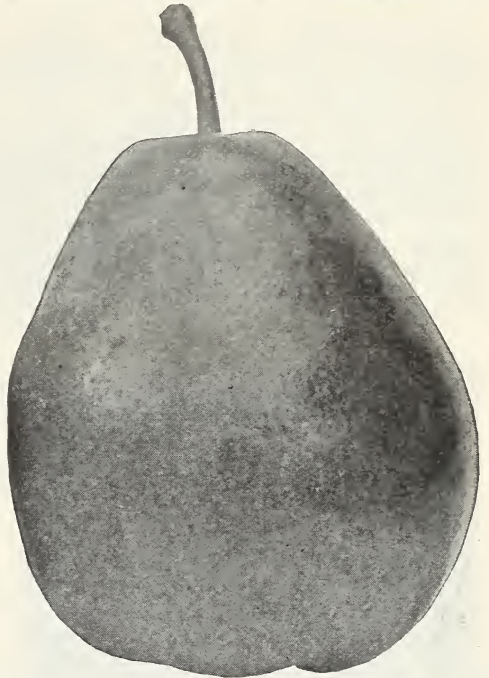
AUTUMN AND WINTER VARIETIES

Beurre Bosc—Large, yellow, russeted, half melting, high flavored and excellent. Tree a poor, crooked grower in the nursery, and but little cultivated. October.

Beurre Claireau—Large; light yellow, shaded with crimson and russet. Very handsome and attractive. Flesh yellowish, melting. Keeps a long time after being gathered. Tree early, abundant bearer. Valuable market fruit. Nov. to Jan.

Beurre de Anjou—Excellent market variety. Fruit large, light green, russet and red cheeked; rich, melting, excellent flavor. Fine grower; good keeper. Productive. One of the finest Pears. Oct. and Nov.

Duchess de Angouleme—Good variety; greenish yellow with patches of russet. Best as dwarf tree, on Quince root. Strong vigorous grower. Fruits when young. October and November.



Lawrence

Dorset—A very handsome and showy late-keeping pear. Large, golden yellow ground, with bright red on sunny side; flesh juicy, melting, sweet, of good quality. Ripe in February, but keeps till May.



Plate of Beurre Anjou



Flemish Beauty—Large size; greenish-yellow and brown; large spots of russet; rich and juicy. Old and highly esteemed variety. A strong grower and great bearer; hardy. October and November.

Garber—One of the Japan Hybrids; earlier and larger than Kieffer; hardy, productive, early bearer; excellent for canning. September and October.

Howell—Large, light waxen yellow, with a fine red cheek, handsome rich sweet, melting, perfumed aromatic flavor. September and October.

Lawrence—An American pear of great excellence. Fruit medium size, obtuse, pyriform; skin fine yellow; flesh juicy, sweet and good. Tree hardy, vigorous and very productive. December.

DWARF PEARS

Profit—It is claimed that there is more money in Dwarf Pears at \$1.00 per barrel than in Apples at \$2.00.

PRICES OF DWARF PEARS

	Each	Per 10	Per 100
3 to 4 ft., XXX, . . .	.25c	\$2.00	\$14.00
2 to 3 ft., XX, . . .	.20c	1.50	11.00

BEST DWARF VARIETIES

Bartlett—Summer.

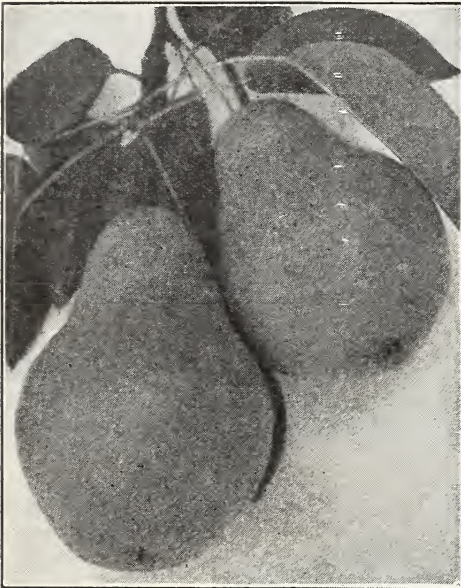
Beurre de Anjou—Winter.

Clapp's Favorite—Very early.

Duchess—Late Fall, fine.

Howell—Early Fall.

Seckel—Late Fall.



Kieffer



Dwarf Pears

Kieffer—Tree remarkably vigorous, having large, dark green, glossy leaves, and is an early and prolific bearer. Fruit large to very large, roundish, oval, narrowing at both ends; skin deep yellow, with a fine blush on the sunny side; flesh whitish, a little coarse, juicy, very good. Ripens through October and November.

Ohio, Nov. 4, 1913.

Gentlemen:—I am just in receipt of the second shipment of trees covering the balance of the order about which I wrote you Sunday. I find this stock to be in excellent shape, and I certainly appreciate the same, and I cannot speak too highly in favor of your nursery, and it will afford me great pleasure to recommend you to any and all who are in the market for anything in this line.

I enclose herewith my check on the Commercial & Saving's Bank for \$40.05 in payment of your invoice of Oct. 29th.

Yours truly,
CURTIS V. SMITH.



The cherry thrives best on a dry, sandy, or gravelly soil, and there attains its highest perfection, but will do very well in almost any situation except a wet one.

We divide them into two classes—Hearts and Bigarreaus, and Dukes and Morellos. The first are strong and vigorous growers, making large, open spreading heads or tops, and are best suited for the purpose of shade, producing a large, heart-shaped sweet fruit. The Dukes and Morellos do not attain so large a size, are more hardy, less liable to bursting of the bark, and generally produce acid fruit.

PRICES OF CHERRIES

	Each	Per 10	Per 100
Largest size, XXX, 5 to 7 ft.	\$0.35	\$3.00	\$25.00
Medium size, XX, 4 to 5 ft. ....	.30	2.50	20.00
Smaller size, X, 2 to 4 ft. ....	.20	1.75	15.00

HEARTS AND BIGARREAUS

Bing—A native of Oregon. Fruit very large, bright and glossy. Color very dark crimson, one of the largest cherries ever produced, and of most excellent quality. Season July.

Black Tartarian—Fruit very large, heart-shaped; with an uneven surface; skin bright black; flesh purplish, tender, rich and good. Ripens early in June.

Dikeman—Fruit of the largest size, heart shaped; nearly black; flesh solid, rich and sweet. Never rots. Tree a vigorous grower; hardy and productive. Ripens late after most of the sweet cherries are gone.

Governor Wood—Fruit roundish, heart-shaped, light yellow, nearly covered with red; flesh tender, rich and sprightly. Ripens last of June.

Hoy—Very large equalling the finest California cherries in size; very light color; unequalled by any other cherry in its high quality and richness of flavor. Tree is a rapid grower, hardy, foliage large and healthy and fruit hangs in immense clusters, almost hiding the branches. This new cherry originated near Philadelphia. We believe it to be the most valuable sweet cherry grown. June.

Lambert—Very large; dark purplish red; flesh dark red with whitish vein and meaty texture; small stone; flavor very sweet, or very mild sub-acid, rich and of the highest quality. Tree thrifty, hardy and vigorous grower. June and July.



Montmorency

Mercer—Very large, bright purplish black; half tender, juicy, very rich, excellent flavor, productive. First to middle of July.

Napoleon Bigarreau—Fruit of the largest size; pale yellow, with a bright red cheek; when fully ripe of an excellent flavor. Ripens early in July.

Rockport Bigarreau—Fruit large, obtuse heart-shaped; skin pale amber, light red in the sun; flesh rather firm, sweet, rich and excellent. Last of June.



Schmidt's Bigarreau—Fruit grows in clusters and is of the largest size; skin deep black color; flesh dark, tender, juicy, with a fine rich flavor; stone small. Early July.

Windsor—Fruit large, liver colored, resembling the Elkhorn, nevertheless, quite distinct; flesh remarkably firm, sweet and of a fine quality. July.

Yellow Spanish—Large; pale yellow, with bright red cheek in the sun; flesh firm, juicy and delicious; one of the best, most beautiful and popular of all light-colored cherries. End of June.

DUKES AND MORELLOS

Baldwin. Tree upright vigorous grower, forming a round head. Leaves large and broad; bloom pure white changing to pink; fruit large, almost round, very dark, transparent wine color, flavor slightly acid, yet the sweetest and richest of the Morello type; stems rather large of medium length, and generally in pairs. Unexcelled in earliness, vigor, hardiness, quality and productiveness. Out of 800 trees it readily attracted attention as being the most thrifty and beautiful. When the original tree was eight years old it had fruited five years and was then one-third larger than any Early Richmond tree of the same age.

Dye House—A sure and regular bearer, ripens before Early Richmond.

Early Richmond—Fruit medium size, round; dark red; flesh melting, juicy, rich, acid. Tree slender, and not a rapid grower; a great bearer. June.

English Morello—Large, dark red, nearly black. Tender, juicy and of rich flavor. Season August.

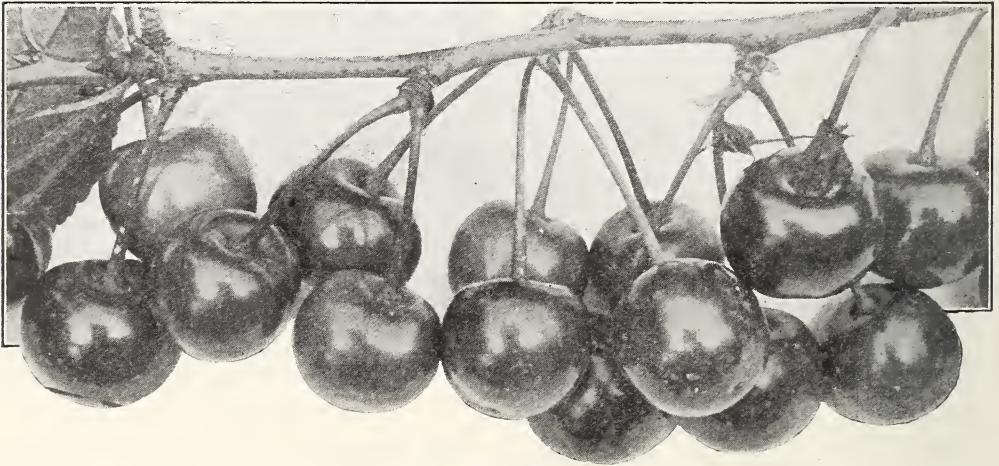
Louis Philippe—Fruit large, skin rich, dark, almost purplish black red; flesh red, tender, juicy, mild acid. Middle to last of July.

May Duke—An old, well known, excellent variety; large, dark red; juicy, sub-acid, rich. Middle of June.

Montmorency—A beautiful, large, red, acid cherry, larger than Early Richmond, and fully ten days later; extraordinarily prolific and very hardy. It is a variety of great value. Habit of tree similar to Early Richmond.

Olivet—A new variety of French origin. Large, globular, very shining, deep red sort, flesh red, tender and rich, vigorous; very sweet, sub-acid flavor. Free. Middle to last of June.

Wragg—Supposed to hail from North Germany; very hardy. The tree is a good grower and immense bearer; fruit a dark liver color, juicy and rich. Quite late and a valuable cherry.



Montmorency

Penna., Nov. 14. 1913.

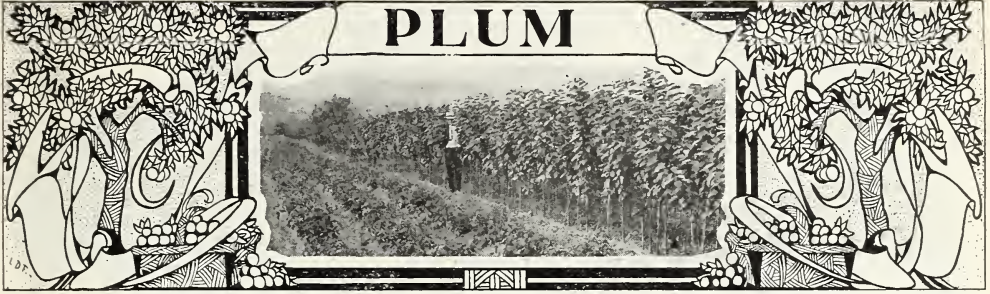
Dear Sirs:—Enclosed find \$61.50, express order for amount due on fruit trees. Thank you very much.

Later on we will have another order for fruit and trees which you can count on, as we are pleased with the way you have dealt with us.

Respectfully yours,

ANDREW NELSON,

661 W. Smith St., Penna.



THE Plum does best on a strong, clay soil, dry and well drained. Here it grows the most thriftily and with cultivation suffers least from "Curculio" or "Black Knot." There is little trouble in keeping the trees free from insects and disease. After the blossoms have fallen spread a sheet on the ground under the trees. Then jar the tree so as to shake down the stung fruit and insects. These should be burned. This should be done every day for a week or more, and it is important that it be done early in the morning.

Having several large blocks of Plum Trees, about 65,000 trees in all to dispose of this year, we are offering them at a very low price. This bargain will last only until lot is sold, no longer. We advise our customers to order early and take advantage of this opportunity. Trees are all two years old, carefully graded and first-class in their sizes. We take great pleasure in offering these trees and have prepared for a rush of orders from customers who will take advantage of this offer.

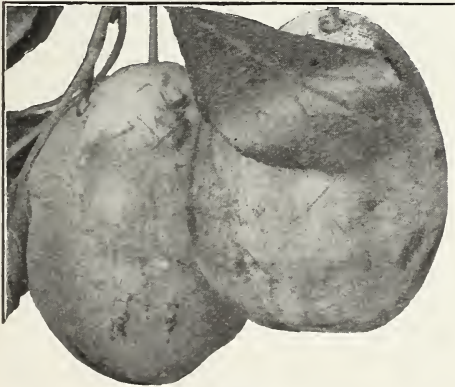
ORDER OF RIPENING

The varieties of plums we offer ripen in the following order: Red June, Abundance, Climax, Bradshaw, Moore's Arctic, Imperial Gage, Shiro, Burbank, Lombard, Shippers Pride, Gueii, Reine Claude, Yellow Egg, Coe's Golden Drop, Wickson, Grand Duke, Monarch, German Prune, Italian Prune, York State, Shropshire Damson.

PRICES OF PLUMS

	Each	Per 10	Per 100
Largest size, XXX, 5 to 7 ft.....	\$0.30	\$2.75	\$25.00
Medium size, XX, 4 to 6 ft.....	.25	2.25	20.00
Smaller size, X, 3 to 4 ft.....	.20	1.75	15.00

All trees carefully graded and first-class in their sizes.



Lombard

AMERICAN AND EUROPEAN

Archduke—A large, black and very prolific plum, ripening early in October. Good for both dessert and the kitchen. Early October.

Bradshaw—Very large; dark violet red.

Flesh juicy and of fine quality. Tree vigorous and productive. Valuable for market. August.

De Soto—Medium; bright red. Sweet and rich. Hardy and productive. Popular in West and North.

Fellemburg—Medium; dark blue. Rich and juicy. Fine for drying. Last of Sept.

German Prune—Large, long, oval; dark purple. Flesh fine quality; rich and juicy. Very best Plum for drying. Tree upright grower and vigorous. The most productive variety. Ripe in September.

Gueii—Very large; deep bluish-purple. Flesh yellowish and sweet. A great early bearer. Hardy and rapid grower. Sept.

Imperial Gage—Medium size; yellow, juicy, rich. Productive and strong grower. August.

Lombard—One of the most popular of all Plums. Medium size; violet red. Flesh yellow and juicy. Tree very vigorous; good bearer. September.

Monarch—Large, roundish-oval; purplish-blue. Freestone. Good quality for home or the market. October.



Moore's Arctic—Medium; purplish-black. Juicy and sweet. Very hardy. August.

Pond's Seedling—A magnificent Plum; light red changing to violet. Flesh rather coarse. Vigorous grower and most abundant bearer. One of the most popular in cultivation.

Reine Claude—Very large; fine flavor; roundish-oval. Greenish marked with red in the sun. Last of September.

Shropshire Damson—An English variety; fine for preserving. Larger and much more desirable than the common Damson. Very reliable and abundant bearer. Tree vigorous grower and very hardy. October.

Shipper's Pride—Large, nearly round; dark purple; very showy. Quality fine; juicy and sweet. Unusually good shipper. Very hardy and productive. Ripens from first to middle of September.

Yellow Egg—Very large and beautiful. A little coarse; excellent for cooking. Tree vigorous and productive. August.

Weaver—Large; purple. Very prolific, fine quality; good bearer. Extremely hardy. September.

JAPANESE PLUMS

To Japan we owe many valuable fruits and flowers; but perhaps the most valuable in many respects, are the plums recently introduced from that country. First, the trees are hardy and perfectly healthy; second, they are remarkably strong and beautiful growers, and early bearers, orchard trees bearing the second season after transplanting; third, they yield immense crops of fruit, which is practically exempt from the attacks of the curculio; fourth, by planting the different varieties, one can have plums for a period of nearly three months.

Abundance—The fruit is full medium size; color a rich, bright cherry red with a distinct bloom, and highly perfumed; flesh light yellow, very juicy and tender and of excellent quality. Last of July.

Burbank—In general character very similar to Abundance but of deeper color, and ripening later in the season. The fruit is nearly globular, clear cherry red with a thin lilac bloom; flesh a deep yellow, very sweet, with a peculiar and very agreeable flavor. Tree is a vigorous grower, with large and broad leaves; very prolific. Middle of August.



Chalco—(Chabot.) Very large, pointed, tapering gradually from a heart-shaped base; color bright red purple, on a yellow ground; very showy. Tree a good grower, blooms two weeks later than Abundance, thus escaping the spring frosts, and a most abundant bearer. Ripens a little later than Burbank. Last of August.

Climax—Very large; deep dark red; flesh yellow, deliciously flavored; extremely early and a leader among shipping plums. Tree vigorous and remarkably productive. June.

Hale—Large; orange color, thickly overlaid with mottled red; very handsome; flesh yellow, with a very delicious, slightly acid flavor. An upright grower. Ripens with Satsuma.

October Purple—One of Luther Burbank's Hybrids and considered by him one of his best. Large, purple, yellow flesh; very late.

Red June—Medium to nearly large; long, pointed; deep vermillion red, with a handsome bloom; very showy; flesh light lemon yellow or whitish, firm, moderately juicy, slightly sub-acid, of good quality; pit small. Tree upright, slightly spreading, vigorous, hardy and productive. Ripens before Abundance. Middle of July.

Satsuma—Large; flesh is solid, of a purplish crimson color from pit to skin, juicy and of fine quality. Pit exceedingly small, very little larger than a cherry stone. Tree a strong vigorous grower, with a brownish bark and lanceolate foliage. Last of August.

Wickson—Very large; glowing carmine, with a heavy white bloom; flesh firm, sugary, delicious; pit small. It will keep two weeks or more after ripening, or can be picked when hard and white; and will color and ripen almost as well as if left on the tree. Last of August.



Plum Trees in Nursery



PEACH growing is to-day a great industry and there are a great many young orchards being planted throughout the country. The ease with which these trees may be cultivated, their freedom from disease, the short period before they become productive, together with the immense demand for the fruit and the facility with which it may be shipped to markets, make Peach growing extremely profitable.

To secure healthy, vigorous and fruitful trees the ground must be kept clean and mellow, and should receive an occasional dressing of wood ashes.

To keep the trees in good shape it is necessary that they should be pruned yearly, all the dead and useless wood cut out and light and air let in.

Following is a list of the more common and most profitable varieties of Peaches:

ORDER OF RIPENING

Carman, Early Rivers, Greensboro, Champion, Mt. Rose, Early Crawford, Niagara, Old Mixon, Crosby, Fitzgerald, Elberta, Hill's Chili, Crawford's Late, Chair's Choice and Beer's Smock.

PRICES OF PEACHES

	Each	Per 10	Per 100
Largest size, XXX, 4 to 6 ft.	\$0.15	\$1.25	\$10.00
Medium size, XX, 3 to 4 ft. ....	.12	1.00	8.00
Smaller size, X, 2 to 3 ft. ....	.10	.75	6.00

Alexander—Medium; color deep maroon, handsomely shaded; rich and good; flesh firm. Fine, hardy and productive. Early June.

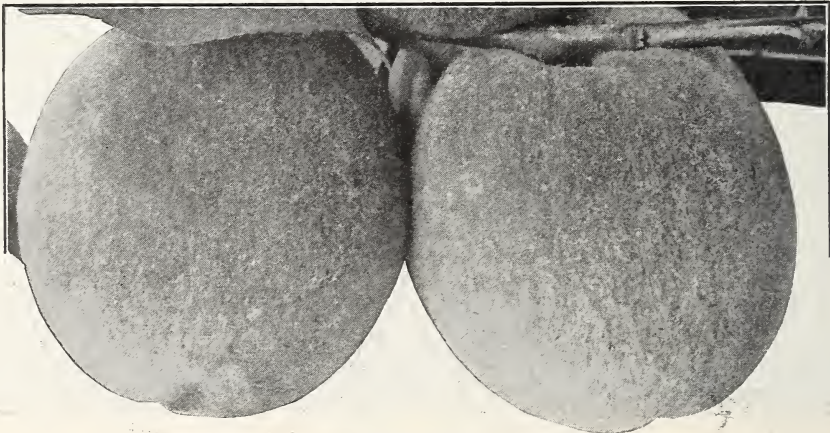
Beer's Smock—A very large, yellow peach; valuable for market. Oct. 10 to 15.

Belle—(Belle of Georgia.) Very large; skin white with red cheek; flesh white, firm and of excellent flavor. Tree a rapid

grower, very prolific; fine shipper. Ripens with Crawford's Early.

Carman—New, hardy, rot-proof Peach. Large, oblong; pale yellow with deep blush. Skin tough. Juicy and fine flavor. Very hardy and productive. Clingstone. Aug.

Champion—Very large; some specimens over ten inches in circumference. Hardy and productive. Freestone. Ripens in Aug.



Champion



Crawford Early—Very large; yellow with red cheek. Flesh yellow, rich, sweet and luscious. Very vigorous and productive. One of the best early yellow Peaches. Early September. Freestone.

Crawford Late—Fruit large size; yellow with dull red cheek. Flesh yellow. Tree vigorous and productive. One of the finest late sorts. Last of September. Freestone.

Chair's Choice—Deep yellow, red cheek. Flesh yellow. Ripens in October. Freestone.

Crosby—Large; yellow, extremely delicious. Tree hardy and productive. Middle of September.

Early Rivers—Large; pale, straw yellow, delicate pink cheek. Middle of August. Freestone.

Elberta—Among Peaches Elberta takes the lead for beauty, size and quality. Larger than Crawford's Early. One of the finest freestone Peaches. Follows Early Crawford. Best market Peach known.

Globe—Rapid, vigorous grower and an enormous bearer. Fruit very large. Flesh firm, juicy, yellow crimson near pit. Fine quality, freestone. September.

Greensboro—Ripens with Alexander, but is twice the size of that variety, and as beautifully colored—a bright red on a yellow ground. It ripens perfectly to the pit, from which it parts freely when matured. Flesh white, juicy and good. July.

★ **Hill's Chili**—Medium; deep yellow shaded with dark red. Hardy, vigorous and productive. Good market variety. First of September. Freestone.

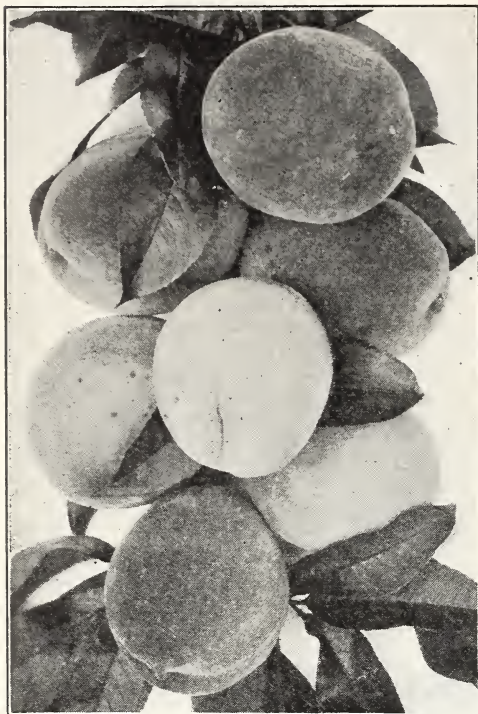
Iron Mountain—Fruit very large; white; freestone; quality good; very hardy in bud; white inside at pit. September.

Kalamazoo—Large; yellow; good quality. Very productive. Popular in Michigan.

Mayflower—A new variety of the greatest merit. In color is practically red all over even before it is ripe enough to ship. It is the earliest peach known and therefore extremely valuable as a market variety. A strong thrifty grower and an abundant bearer.

Mountain Rose—Large; red. Flesh white, excellent; one of the best early Peaches. Should be in every collection. Freestone. First of August.





Elberta

Niagara—Originated in Western New York; surpasses Elberta and Crawford in flavor, color, quality and vigor. Ripens between Crawford and Elberta.

Old Mixon Freestone—Fruit large, oval; skin yellowish white, with a red cheek; flesh white, but red at the stone; rich, sugary and excellent. Tree vigorous and very productive. Middle of September.

Salway—Large; deep yellow, red cheek. Flesh yellow, juicy. Freestone. October.

Smock—Large size; light orange yellow with red cheek. Flesh yellow, juicy and rich. Freestone. October.

Stevens' Rareripe—Large, yellowish white. Flesh white, juicy. Later than Late Crawford. Freestone. Sept. and Oct.

Stump of the World—Very large, roundish; skin white with bright red cheek. Flesh white, juicy and good. Freestone. End of September.

Triumph—The tree is a strong grower; blossoms late, with large flowers, and is an early and abundant bearer; fruit of large size, with small pit; skin yellow, neatly covered with red, showing dark crimson on the sunny side; flesh bright yellow, ripening evenly to the pit. Ripens with Alexander. July.

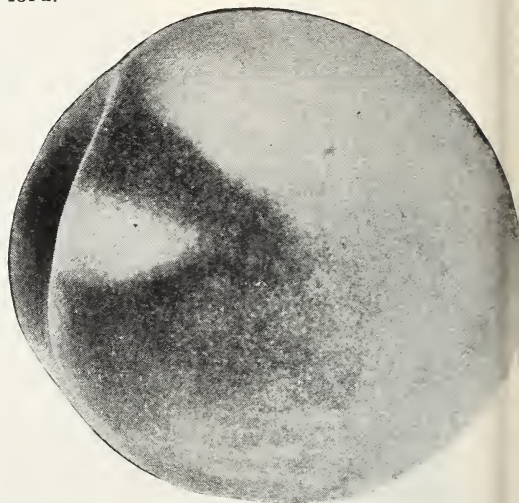
Wardell—A new early peach, remarkably hardy in wood and fruit bud. The tree is a vigorous grower and very productive. Fruit of large size; skin thick; flesh firm, rich, sweet and melting; free from rot, a good keeper and a good shipper; freestone. Ripens a few days before Carman. The hardiest peach of its season. July.

Wager—Medium; yellow with red cheek. Rich and sweet. Good keeper and shipper. Fine canner. Vigorous and sure cropper. Freestone. Early September.

Waterloo—A seedling originated in Waterloo, N. Y.; medium to large; skin whitish green, marbled with purple; juicy and vinous. Ripens with Alexander, and is the best flavored of the earliest peaches.

Willet—Bright yellow, mostly covered with red. Flesh juicy and rich. Freestone. September.

Yellow St. John—Large; yellow with deep red cheek. Flesh yellow, sweet, juicy. Bears young. Ripens before Early Crawford.



Triumph

— WILL BUY OF US HEREAFTER —

Gentlemen:—Enclosed please post order in settlement in full for trees and plants.

Trees arrived in good shape and were very fine. "Thanks."

Hope to send more orders for next season, I remain,

Yours truly,

Maryland, Nov. 10, 1913.

G. G. BOWLUS.

GRAPES



THESE require a warm, well drained soil, deeply worked and manured. Should be grown on a slope to the south or east, as they require lots of sun. Plant eight to sixteen feet apart according to variety in rows ten feet apart. Plants should be thoroughly pruned in November or December when the wood is ripe. Enormous profits have been realized from this fruit. Vines produce 40 to 50 pounds of fruit the fourth year from planting. An acre holds 680 vines. Following is a list of the more common, productive and hardy varieties:

PRICES OF GRAPE VINES (Except as Noted).

Each 12c; \$1.00 per 10; \$7.50 per 100; \$60.00 per 1,000.

Agawam—Medium size; jet black, sweet and melting, hardy and prolific. A fine early variety.

Brighton—Bunch large, rather irregular; berries above medium, round, dark red; quality best. Ripens early. Sept.

Campbell's Early—Vine strong, vigorous and very productive; clusters large and perfect; berries large, black, with a purple bloom; skin thin; an admirable keeper and shipper; flavor rich; sweet, slightly vinous. Early September. 20c each; dozen, \$2.00.

Catawba—Bunches and berries large; skin pale red; flesh juicy, sweet and highly aromatic. Vine productive, but uncertain except in favored locations. October.

Cortland—(New). Origin Cortland Co., N. Y. Early, fruit of good quality, the clusters very compact and of fair size, berries quite large with a thin skin and very little pulp. Color black. Free from mildew or rot and the vines require no protection in the coldest climate where grape vines grow. Season middle of Aug.

CONCORD—DECIDEDLY THE MOST POPULAR GRAPE in America. There are more Concords planted by vineyardists than all other varieties combined. Bunch large, shouldered, compact; berries large, covered with a rich bloom; skin tender, but sufficiently firm to carry well to distant markets. For general cultivation the most reliable and profitable variety. Price, 3 for 25c; 10 for 75c; 100 for \$6.00; 1,000 for \$45.00.

Delaware—Bunches rather small, compact, shouldered; berries small, round, beautifully rose colored; skin thin; flesh juicy, very sweet, but with a high vinous flavor; unsurpassed in quality. Vine rather a slow grower. September.

Diamond—(Moore's). The vine in vigor of growth, foliage and hardiness, resembles Concord; bunch large and compact, berries round, of delicate greenish white, with a rich yellow tinge; skin smooth and entirely free from brown spots and dots; very few seeds; juicy and free from pulp. Ripens with Worden. Early September.

Early Ohio—The earliest good black grape known; ripens ten days to two weeks before Moore's Early. Bunch large, compact, shouldered; berry medium, covered with heavy bloom; leaves very large, thick, leathery; foliage heavy and perfectly healthy. Fully as hardy or more so, than Concord. A vigorous grower, very productive and of good quality. Berry adheres firmly to stem. One of the best shippers. The only early grape that will not shell.



Worden



Concord

Empire State—Vine a vigorous grower, healthy and very productive; bunches large, shouldered; berry medium to large, roundish oval; color white with a very slight tinge of yellow, covered with a thick white bloom; flesh tender, juicy, sweet and sprightly. Ripens with Concord. Sept.

Green Mountain—White, bunches large and compact; berries large and of good quality. A fine early white grape. Aug.

Hartford Prolific—Bunches large, rather compact; berries large, round, black, skin thick. Early September.

Moore's Early—This very valuable black grape is a seedling of the Concord. The vine is fully as hardy and healthy as its parent, while the fruit is large, more beautiful and of better quality. First of Sept.

Niagara—The vine is a strong grower and hardy; the leaves are a dark glossy green, thick and leathery; bunches large and very compact; berries large; skin thin but tough; quality fair. Early September.

Pocklington—Vine hardy, healthy, vigorous, with short, jointed shoots; leaves large, thick, tough and downy; productive; bunches and berries of the largest size; color a golden yellow, covered with a fine bloom. September.

Salem—Bunch large, shouldered, compact. Berries large, round, Catawba color; skin thick and firm; flesh sweet, tender with a rich aromatic flavor. Vine moderately vigorous, hardy, healthy; ripens early. It is a splendid keeper. September.

Wilder—Bunch large, shouldered, compact. Berries large, black skin thin but firm, sweet, tender, good flavor, good keeper, moderate grower. September.

Worden—Bunches large, handsome, double shouldered; berries large, sweet, lively. Vine very thrifty and vigorous; perfectly hardy, healthy and a good bearer. September.



CURRENTS

CURRENTS are the most profitable of small fruits. An acre yields from 200 to 250 bushels of fruit, bringing a price of from \$4.00 to \$5.00 per bushel. Plants should be set in rows four feet each way, allowing plenty of light and air. For protection against the currant worm dust a little white hellebore powder over the bushes when the leaves are damp. Do this as soon as worms appear.



Fay's Prolific

Cherry—Strong grower, fruit very large. Each, 10; 12 for 75c; 100, \$5.00.

Fay's Prolific—Extra large stems and berries uniform in size. Easy to pick; exceedingly productive. Bush vigorous, but not as strong grower as some varieties. Each, 10c; 12 for 75c; 100, \$5.00.

Lee's Prolific (Black)—One of the best black Currants; fruit large, produces abundantly. Each, 10c; 12 for 75c; 100, \$6.00.

North Star—The average length of the bunches is four inches; the berries from a single bunch, thirty in number, placed side by side, touching, covered a line twelve inches long. The fruit is very sweet and rich in quality, firm; a good market berry; desirable as a dessert fruit in its natural state, and unequalled for jelly. The length and abundance of the clusters make it possible to pick 25 per cent more fruit than from other sorts. Each, 10c; 12 for 75c; 100, \$6.00.

Perfection—In color it is a beautiful bright red, a size larger than the Fay; clusters average longer and the size of berries is maintained to the end of the bunch. It is one of the most productive Currants we have ever known; quality is superior to anything in the market, being of a rich, mild, sub-acid flavor and having plenty of pulp with few seeds. Each, 15c; 12 for \$1.50; 100, \$12.00.

Pomona—Medium size, clear bright red, excellent in quality; hangs long time after ripe; holds up well on market; is one of the best for shipping; easily and cheaply picked. Holds an unparalleled record for actual acreage yield. Each, 10c; 12 for 75c; 100, \$6.00.

Prince Albert—A good grower, with large heavy foliage, which holds very late. Fruit large, bright red, of good quality, and ripens late, after other sorts are gone. Each, 10c; 12 for 75c; 100, \$6.00.

Red Cross—Much superior to Fay's in every respect. It is the most vigorous grower of all Currants we have tested. Each, 10c; 12 for 75c; 100, \$6.00.

Red Dutch—An old, well known sort, berry of medium size and good quality; bunch long, plant an upright grower and very prolific. Each, 10c; 12 for 75c; 100, \$6.00.

White Grape—The largest and most productive white Currant grown; flavor sweet; fine for table. Each, 10c; 12 for 75c; 100, \$6.00.

Wilder—It is one of the strongest growers and very productive. Bunches of berries very large, bright, attractive red color, and hang on bushes longer than any other variety. Each, 10c; 12 for 75c; 100, \$5.00.

Also Black Naples, London Market and Victoria.

QUALITY IS APPRECIATED

Ohio, Sept. 20, 1913.

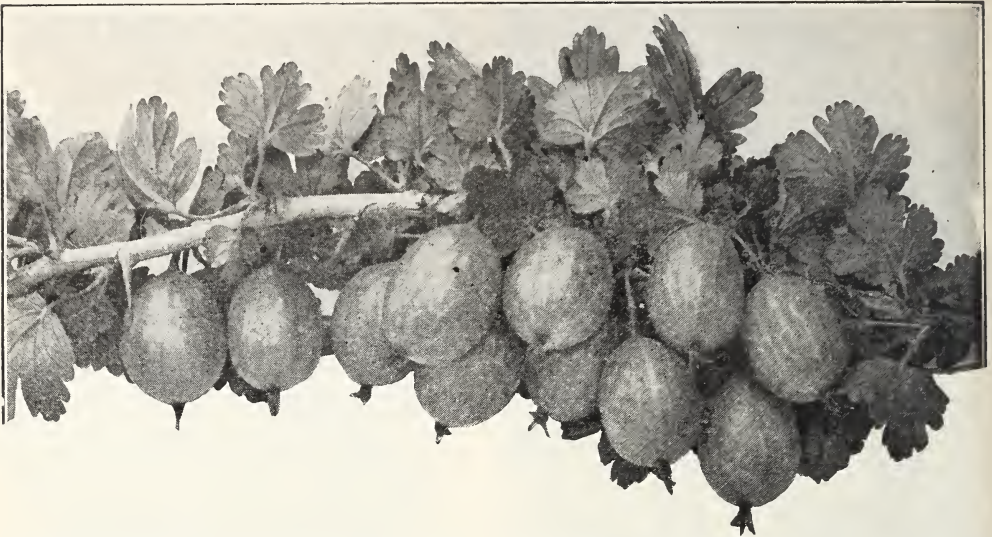
Dear Friends:—

The plants received all O. K., and they are certainly fine. Please find enclosed full amount of order \$17.00.

Yours with respect,
WILLIAM HARE.



GOOSEBERRIES



THE interest in and demand for this fruit is constantly growing. The expense of cultivation is light and returns most satisfactory. Good plants should produce 200 bushels per acre third year after planting, and 300 to 400 bushels the fifth year. Gooseberries bring \$4.00 to \$6.00 per bushel.

Downing—Large, handsome, pale green, of splendid quality for both cooking and table use. Each, 15c; 12 for \$1.50; 100, \$10.00.

Houghton—A very productive hardy berry, of medium size, and for general purposes one of the best. Each, 15c; 12 for \$1.50; 100, \$10.00.

Red Jacket—An American Seedling of large size; smooth, prolific and hardy, of

best quality. A wonderful cropper. Each, 20c; 12 for \$2.00; 100, \$12.00.

Pearl—Best American variety; very hardy, free from mildew, superior in size and quality and more productive than Downing. Each, 15c; 12 for \$1.45; 100, \$10.00.

Also Industry, Smith's Improved and Whitesmith. Gooseberries sent by mail, add 1c per plant.

Pennsylvania, Oct. 8, 1913.

Dear Sirs:—Please find enclosed \$6.00 for shrubs received. All were in fine shape and were set according to directions. We trust they may do well. Kindly send me Catalogue. We will order something later on.

Yours truly,

NELLIE A. VANDERPOOL.

Buy Direct From the Grower

In the **Farmer's Bulletin, No. 113** of the United States Department of Agriculture, it says:

"If the farmer makes his purchase direct from the nurserymen, he will **save the expense of the middleman or agent**, and is less liable to the mistakes and injuries that occur through repeated handling."

RED RASPBERRIES

RASPBERRIES succeed in a rich, mellow soil. They should be planted four feet apart in rows five or six feet apart. They are easily cultivated, only requiring manuring and cutting out of dead wood and suckers. Old canes should be removed after bearing season is over. If the location is much exposed, plants may be protected from severe cold by raising the earth between the hills into a bank or mound. Then bend down the plants to meet, fasten them and cover them with earth or coarse litter. In the spring uncover and tie to stakes.

PRICES OF RASPBERRIES (Except as Noted).

50c. per 12; \$2.00 per 100; \$12.00 per 1,000.



St. Regis

THE EVERBEARING RASPBERRY— ST. REGIS.

It Bears the First Season.

One of the greatest Raspberries ever introduced. Plants of the ST. REGIS put out in the Fall or early April gave ripe berries on the 20th of June. For four weeks thereafter the yield was heavy and the canes continued to produce ripe fruit without intermission until late October. The berries were large and beautiful, firm and full flavored, to the very last. The ST. REGIS is the only Raspberry, as far as known, that is practically sure to produce a crop of fruit the season planted. Awarded the highest certificate of merit by the AMERICAN INSTITUTE OF NEW YORK. 6 for 50 cents—12 for \$1.00—25 for \$2.00

Columbian—For canning purposes it is undoubtedly the very best Raspberry in cultivation, yielding as high as 8,000 quarts per acre. Perfectly hardy and grown largely for evaporating, retaining color, form and flavor remarkably.

Cuthbert—It is the leading market variety all over the country. Flavor sweet, rich, luscious.

Herbert (Iron-clad variety)—New, out-classes all in hardiness. Fruit is bright red, somewhat oblong in shape. Largest of all Red Raspberries; sweet, juicy. Very best for table use. Enormously productive; outbears the Cuthbert and is a week earlier. Holds its size well to the end of the season.

Marlboro—Large size; light crimson color; good quality and firm.



Herbert

BLACKBERRIES

ANY moderately rich soil will answer for their cultivation, but to avoid too strong a growth and straggling habit, pinch the ends of the shoots during the season. This will give you more fruit and a better shaped bush.

PRICES OF BLACKBERRIES (Except Blowers).

60c per 12; \$3.00 per 100 \$20.00 per 1,000.

Blowers—"The Giant of all Blackberries." An upright, mammoth grower; very hardy and enormously productive. A single plant produced over 2,600 berries. It commences to ripen about the middle of July and bears about two months. Prices 4 for 25c; 12, 60c; 100, \$3.50; 1,000, \$25.00.

Eldorado—One of the hardest; fruit medium to large; sweet, juicy, good color.

Rathbun—Fruit very large, with small seeds, no hard core. Sweet, luscious, high flavor; color jet black; firm. Plant strong, erect. Roots at the tips like the blackcap; hardy and prolific.

Snyder—Plants vigorous, healthy, canes large, upright, hardy. Fruit medium, roundish.

Taylor—It is so extremely hardy as to have stood 30 degrees below zero unharmed. Berries large and of the highest quality. One of the best for garden.

Wilson's Early—Very large size, oblong oval, black, quite firm, rich, sweet and good. Ripens early and matures its fruit rapidly; retains its color well after picking.

Also Agawam, Erie and Wilson's Junior.

DEWBERRIES.

Prices of Dewberries, 85c per 12; \$4.00 per 100; \$30.00 per 1,000.

Austin—Very early, of good quality. Best for north and northwest.

Lucretia—The best and most dependable Dewberry. Large, jet black, highly flavored and hardy. A profitable market sort.



A Bunch of Blowers Raspberries



Selecting the Best Berry Tops for Transplanting

STRAWBERRIES



Big Ben Strawberry

FIRST of small fruits come Strawberries. These should be planted in April, May or October, in good ground well worked and manured with muck, wood ashes or bone dust. Set plants fifteen inches apart in rows three feet apart for field culture and fifteen inches for garden culture. Mulch late in the Fall and uncover early in the Spring. Varieties which are imperfect must be planted together with perfect varieties. We have growing and offer for sale some of the finest plants that can be grown. Following is a list of some of the most popular varieties we handle. Strawberries may be sent by mail. At dozen rates we prepay postage; to prepay at hundred rates add 20c to price per hundred.

PRICES OF STRAWBERRIES

25c per 10; 75c per 100; \$6.00 per 1,000.

Big Ben—The fruit is very large; plant is a strong grower, fruit is fine in quality and combines about all the good points that you would naturally expect one berry to possess.

Bismark—Season, medium late; one of the most productive, large, perfect flowering berries ever introduced; colors all over at once; very bright red and delicious; a good shipper.

Brandywine—Another fine late variety, with very strong, healthy foliage; very firm and is of high attractive color.

Bubach (P)—Large and handsome; conical, bright scarlet, fair quality. Season early to medium.

Climax—Enormously productive, of good size, finely flavored, perfectly formed berries, ripening extremely early.

Clyde—Berries large, cone shape, as pretty as a top; color, a bright crimson to the center; very valuable.

Gandy—The popular, late market berry, always commanding fancy prices.

Glenmary—A fine, large, late berry of excellent quality.

Haverland (P)—Large, long, bright red; a great yielder.

STRAWBERRIES—(Continued)



Klondike

Klondike — Particularly valuable for fancy family trade; ships well for so large a berry; season, medium early to very late; ripening even; color fine; good on light and heavy soil.

Marshall—Makes a few runners; should be grown in hills or narrow row; very large, dark berries; red to the center; a first class sweet berry for family use, of the best quality.

Michael's Early—Long been known as the extra early berry; a strong grower; good yield; good quality; fair size for so early a berry.

✓ **Midnight**—A strong grower; even form; good color; prolific bearer; better for home use, being a little soft for shipping.

New Home—The very best Strawberry for home use in the world. Fruit large, slightly flattened, sweet, possessing the delightful wild strawberry flavor; rich, red flesh; melting, seeds few, hull easily removed. \$2.50 for 50 plants, or \$4.00 per 100.

New York—Large, smooth berry; ripens evenly; very strong, healthy growth; fine market and table berry.

✓ **Parker's Earle**—Large uniform size; color, deep blood red; good shipper. Perfect.

Sample—In productiveness it is perhaps surpassed by none. The fruit is very large. Of fine quality, but not the best.

Senator Dunlap—Very productive. Large, bright, or slightly dark red. Quality the very best.

✓ **Stevens' Late Champion**—Large, light red berries, pointed globular; regular and perfect in form; very firm and of extra high quality. An ideal plant to produce large berries and yield an enormous quantity of them. Season late.

Warfield—This is the great early market berry; a first class berry of high color; nice shape and a strong grower.

Wm. Belt—Very large, conical; color, bright red; quality very good. Season medium to late.



Garden Roots

ASPARAGUS

Cultivation—See that the ground is well drained, naturally or otherwise, work it up fine and deep and make it very rich with well rotted barnyard manure. Locate the plants, eight inches apart, rows three feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and except near the sea-shore, three pounds of salt per square yard early every spring. Do not cut for use until the plants have grown two seasons.

A bed once planted suffers no deterioration for thirty years or more, if it is properly attended to and well manured. Prices, 25 for 25c; 100, 75c; 1,000, \$5.00.

Barr's Mammoth—Robust and vigorous and throws large shoots, and they remain white above ground as long as they are fit for cutting.

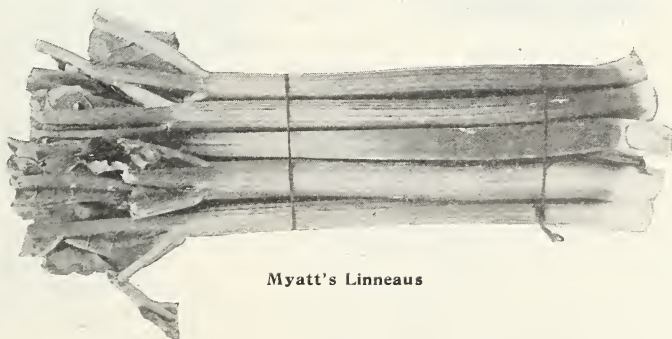
Conover's Colossal—This variety is remarkably tender and fine flavored.

Palmetto—An early and great yielder and very even and regular in its growth. It has been tested both North and South and has proved entirely successful in every instance.

Columbian Mammoth White—Produces shoots which are white and remain so as long as fit for use. In addition to the marvelous advantage of its white color, the Columbian Mammoth White Asparagus is even more robust and vigorous in habit, and throws larger shoots and fully as many of them, as the Conover's Colossal.



Barr's Mammoth



Myatt's Linneaus

RHUBARB

Rhubarb (or Pie Plant)—For family or market. Have you a bed of Rhubarb in your garden? If not, do not fail to start one this Spring. Set plants 12 to 18 inches apart in rows.

Myatt's Linneaus—Early, tender and very large, known as the sweetest pie plant. Each, 10c; 12 for 60c; 100, \$4.00. Extra large plants for forcing in green-houses: Each, 15c; 12 for \$1.00; 100, \$5.00.

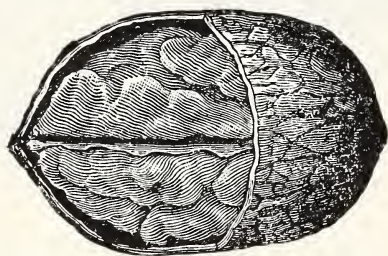
NUT TREES

NUT culture in the United States is in its infancy. Great strides are being made both in the number of nut trees planted and the improvement in variety and quality. Most farms contain land that would pay better planted in nut bearing trees than in anything else; the nuts, in many cases, paying better than farm crops or fruit, while the trees are growing into valuable timber.

Almond—Hard Shell—A fine, hardy variety with a large plump kernel. 2-3 ft., 50c.

Soft Shell—Not as hardy as above; kernels sweet and rich. 2-3 ft., 50c.

American Sweet Chestnut—It is a native of the Atlantic Coast States, but has come into favor so much that it is planted North and in some of the Western States with success. It succeeds best if transplanted when young. We have several rows that bore a good crop when five years old, and we have no hesitancy in stating that it would be one of our best paying crops had we enough in bearing to make marketing necessary. Prices of trees, 3 to 4 ft., 30c each; 10, \$2.50. 4 to 5 ft., 50c each; 10, \$4.50.



Walnut, Japan

Hazelnut (Filbert)—This is the sort usually sold in the fruit stores. Prices, 30c each; 10, \$2.50.

Hickory—Shell Bark—To our taste no other nut that grows, either foreign or native, is superior to this in quality. The tree is of sturdy, lofty growth. Each, 75c.

Pecans—Are hardier than English Walnuts, but will not succeed far north. This nut is very productive and delicious. Prices of Pecans, 2 to 3 feet trees, 35c each; 1 to 2 feet, 25c each.

Black Walnut—The common well-known Black Walnut, the wood of which is most

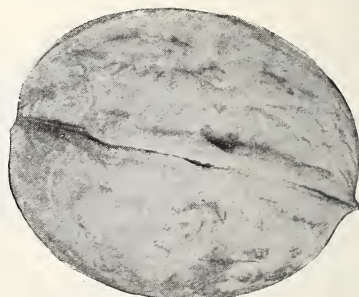
beautiful and valuable. It is very productive in nuts, which are much liked by many. Price of Black Walnut Trees, 4 to 5 feet, 35c each; 3 to 4 feet, 25c each.



Butternut

Butternut—A fine native tree producing a large, longish nut, which is prized for its sweet, oily, nutritious kernel. Prices, 4 to 5 feet, 40c.

Walnut, Japan—Perfectly hardy, rapid grower, handsome form, immense leaves; bears young and abundantly; one of the finest ornamental trees. Nuts produced in clusters; resembles butternut in shape and quality; smaller with smooth and thinner shell. Worthy of extensive planting. Price, 4 to 5 feet, 50c each; 10, \$4.50.



English Walnut

Walnut, English—One of the largest, most delicious, meaty and desirable nuts. Not entirely hardy, but trees are bearing nuts in open ground at Geneva, N. Y. It is safe to plant it as far north as Philadelphia, Pa. Price, 4 to 5 feet, 50c.



MANY people, while they appreciate well-arranged and well-kept grounds, fail to realize that they can have equally fine grounds. They have tried a few shrubs or roses, perhaps growing them in unsuitable ground, with no attention given to pruning or cultivation. Under such circumstances good results cannot be expected.

The growing demand for Ornamentals in recent years clearly shows they are of commercial value, as well as beautiful and ornamental. Grounds artistically planted and well kept will certainly demand almost double the price of bare, unkept grounds.

In this catalogue we have not attempted to describe many of the rare or special kinds, confining ourselves rather to those things which are in more general demand. We shall, however, be very glad to furnish descriptions and quotations on any varieties not described or quoted herein.



Catalpa Bungei

Alder, Imperial Cut-leaved — A very striking and beautiful tree, with delicately and deeply cut foliage; hardy and of vigorous growth, forming an open and handsomely shaped head. One of the finest cut-leaved trees in cultivation. Price, \$1.00 each.

Beech, Fern-leaved—An elegant tree of symmetrical habit, having beautifully cut, fern-like foliage, and a graceful, wavy aspect. Price, 3 to 4 feet, \$1.00 each.

Beach, Purple-leaved—A remarkable variety with very dark purplish foliage, changing to crimson, and again in the Fall to dark purplish-green, making a striking

contrast with the green of other trees. Highly ornamental and desirable. Price, 4 to 5 feet, 50c each.

Birch—Graceful, airy trees, suitable for the lawn. They are hardy, and thrive in all soils

Birch—European White (Alba)—Silvery bark and slender branches. Fifteen to thirty feet high when fully grown. Price, 4 to 5 ft., 30c. 5 to 6 ft., 40c. 6 to 7 ft., 50c.

Birch, Cut-Leaved Weeping—This noble tree is not only the most popular of the weeping trees, but it is indeed a picture of delicacy and grace. Its tall, slender, yet vigorous growth, graceful branches, silvery white bark, and delicately cut foliage, present a combination of attractive characteristics, rarely met with in a single tree.

	Each	Per 10
5 to 6 feet.....	\$0.60	\$5.50
6 to 8 feet.....	.75	7.00
8 to 10 feet.....	1.00	9.50

Catalpa Bungei (Umbrella Catalpa)—Grafted on stems 6 to 8 feet high, it makes an umbrella shaped top without pruning; perfectly hardy and flourishes in almost all soils and climates; leaves large, glossy, heart shaped, deep green; always making a symmetrical head. One of the most unique trees; desirable for lawn, park and cemetery planting. Price of extra large, 2-year trees, \$1.00 each.



Bechtel's Double Flowering Crab

Catalpa Speciosa—A variety which has become very popular throughout the country on account of its hardy nature. The trunks are straight and smooth, hence particularly adapted to forest planting, as its wood has been found to be very valuable for fence posts, railroad ties, etc. It is the most popular of the Catalpas for street and park planting. Price, 6 to 8 feet, 35c; 8 to 10 feet, 50c.

Cherry, Double-Flowering (Flore alba pleno)—Blooms in May, and the flowers are so numerous as to completely hide the branches from view; blossoms white and very double. Fifteen to twenty feet high when fully grown. Price, 75c.

Crab, Bechtel's Double Flowered American—One of the most beautiful of many fine varieties of flowering Crabs. Tree of medium size, covered in early spring with beautiful, double fragrant flowers of a delicate pink color. From a distance the flower has the appearance of small roses. A great acquisition, and certain to become very popular as known. Price, 3 to 4 feet, 50c.

Elm, Camperdown Weeping—Grafted 6 to 8 feet high, this forms the most picturesque of weeping trees. The leaves are large, dark green and glossy. Price, \$1.00 each.

Elm, American—A noble, drooping spreading tree of our own woods; one of the grandest of park and street trees.

	Each	Per 10
8 to 10 feet.....	\$0.50	\$1.00
10 to 12 feet.....	.75	6.50

Judas Tree or Red Bud—A very ornamental tree, medium size, with heart shaped leaves of pure green color and glossy surface. Before the foliage appears it is covered with a profusion of delicate pink flowers, from which it derives its name, Red Bud. Its flowers are the same as the Chinese Magnolia, and when planted with them produce a very beautiful effect. Price, 50c each.

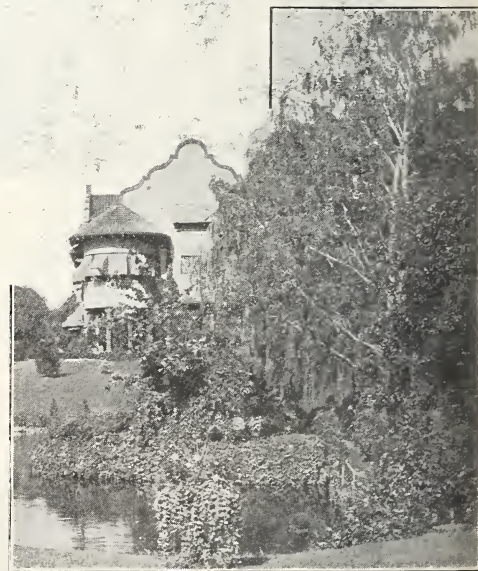
Horse Chestnut (White Flowering)—A well known variety. Its magnificent spikes of white flowers make it very attractive. Fine for street planting.

	Each	Per 10
4 to 5 feet.....	\$0.35	\$3.00
5 to 6 feet.....	.40	3.50
6 to 8 feet.....	.50	4.50

Laburnum or Golden Chain—A native of Europe; with smooth shining foliage. Bears long, pendent racemes of golden flowers in June. Showy, beautiful. Price, 4 to 5 feet, 50c each.

Linden, American or Basswood—A rapid growing, open head or spreading tree, with large leaves and fragrant flowers. Very desirable on account of its fine, luxuriant foliage.

	Each	Per 10
6 to 8 feet.....	\$0.50	\$4.50
8 to 10 feet.....	.65	6.00



White Birch

Linden, European—A very fine pyramidal tree with large leaves and fragrant flowers. Most valuable for street or lawn planting.

	Each	Per 10
3 to 8 feet.....	\$0.55	\$5.00
8 to 10 feet.....	.70	6.50

Larch—European—A. Irregular pyramidal form, rapid grower. Price, 3 ft., 40c.

Magnolia, Acuminata—A magnificent tree, growing very rapidly, producing in June yellow flowers, tinted with bluish purple. Very desirable on account of its fine luxuriant foliage, rapid growth and fine flowers. Price, 5-6 ft., 60c each; 10, \$5.00.

Magnolia, Soulangeana—A variety with showy white and purple flowers, cup-shaped and three to five inches in diameter; foliage large and glossy. One of the finest and hardiest. Price \$1.50 each.

Maple, Ash Leaved or Box Elder—A fine rapid growing variety with handsome light green foliage and spreading head; very hardy, desirable for street planting and succeeds in many places where other varieties do not thrive.

	Each	Per 10	Per 100
3 to 8 feet....	\$0.40	\$3.50	\$30.00
8 to 10 feet....	.50	4.00	35.00



Norway Maple

Maple, Norway—A distinct foreign variety, now very popular here on account of its clean, broad foliage of deep green. Stout, vigorous grower. Very desirable and universally planted.

	Each	Per 10	Per 100
3 to 8 feet....	\$0.60	\$5.00	\$40.00
8 to 10 feet..	.75	6.50	55.00
10 to 12 feet..	1.00	9.00	80.00

Maple, Silver-leaved or Soft Maple—A hardy, rapid growing native variety of the largest size; foliage bright green above and silvery beneath. Valuable for pro-

ducing a quick shade. Excellent for street planting.

	Each	Per 10	Per 100
6 to 8 feet..	\$0.45	\$4.00	\$35.00
8 to 10 feet..	.50	4.50	40.00
10 to 12 feet..	.65	6.00	55.00

Maple, Sugar or Rock—A well known native tree, valuable alike for its production of sugar and wood. Its stately form and rapid growth make it desirable as an ornamental shade tree.

	Each	Per 10	Per 100
6 to 8 feet....	\$0.50	\$4.50	\$40.00
8 to 10 feet....	.60	5.50	50.00

Maple, Schwedler's—A valuable tree, recently introduced; young shoots and leaves of a purplish crimson color.

	Each	Per 10
4 to 6 feet.....	\$0.60	\$5.50
6 to 8 feet.....	.80	7.50

Maple, Wier's Cut Leaved—A maple with remarkable and beautifully dissected foliage. Of rapid growth; shoots slender and drooping, giving it a very graceful appearance. While it makes a large tree if undisturbed it will bear any amount of pruning and may be easily adapted to small lawns. Price, 6 to 8 ft., 60c each; 10, \$5.00.

Mountain Ash—A favorite, erect growing tree of medium size, producing white flowers, early in the Spring, followed by clusters of bright scarlet berries which remain on the tree through the winter months.

	Each	Per 10
6 to 8 feet.....	\$0.50	\$4.50
8 to 10 feet.....	.65	6.00

Mulberry, Russian—A hardy, rapid growing tree. Foliage abundant; valuable for windbreak. Fruit of little value.

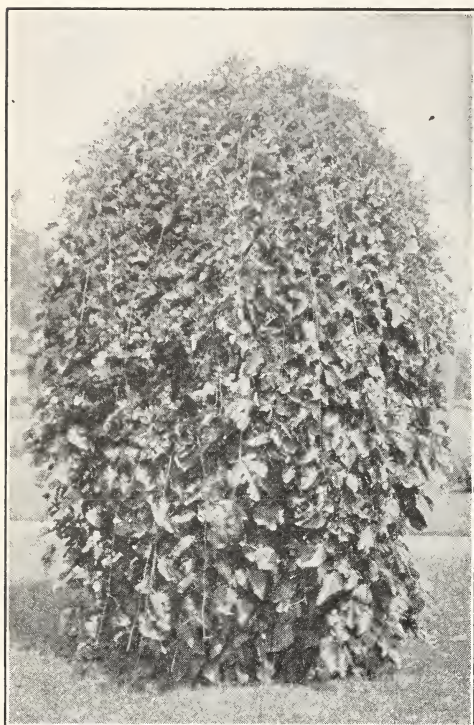
	Each	Per 10
4 to 5 feet.....	\$0.35	\$3.00
5 to 6 feet.....	.40	3.50

Mulberry, Downing—The beauty of this as a street or lawn tree is quite enough to commend it, but in addition it yields an abundant supply of its large, refreshing berries for about three months. Price, 4 to 5 ft., 75c each.

Mulberry, Tea's Weeping—The most graceful and hardy tree in existence. Wholly unlike anything heretofore introduced. Forms perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground. Admirably adapted for ornamenting large or small grounds, and also for cemetery planting. Price, \$1.00 each.

Oriental Plane—This tree is fast becoming popular for street planting. It is a rapid, upright, clean grower and long lived; beautiful dense foliage; it is not affected by the air of cities or by insects.

	Each	Per 10
6 to 8 feet.....	\$0.50	\$4.50
8 to 10 feet.....	.75	7.00



Mulberry, Teas Weeping

Poplar, Carolina—A remarkably rapid, luxuriant grower. Very large leaves, very glossy, deep green. It has the advantage over other shade trees because it will grow in any kind of soil and will thrive in places where others will fail to live. For a quickly growing shade tree there is none that equals the Carolina Poplar.

	Each	Per 10	Per 100
5 to 6 feet..	\$0.10	\$.85	\$ 7.50
6 to 8 feet..	.15	1.25	10.00
8 to 10 feet..	.20	1.55	13.00
10 to 12 feet..	.25	2.25	20.00

For Special Planting, well grown specimens, 14 ft. high. Price, 70c each; 10, \$6.50.

Poplar, Lombardy—Well known for its erect, rapid growth and commanding form. Very desirable in large grounds or along

roads, to break the average height and forms of other trees. When fully grown 50 to 75 feet.

	Each	Per 10	Per 100
6 to 8 feet..	\$0.20	\$1.50	\$12.00
8 to 10 feet..	.25	2.00	16.00
10 to 12 feet..	.30	2.50	20.00

Purple Leaved Plum (Pissardi)—The smallest purple-leaved small shrub of recent introduction. The young branches are a very dark purple. The leaves when young are a lustrous crimson, changing to dark purple, and retain this beautiful tint until they drop late in Autumn. Flowers white, small, single, covering the tree. Price, 5 to 7 feet, 50c each; 10, \$4.00.

Thorn, Paul's Double Scarlet—Flowers bright carmine red. Superior to any of its color. Strong trees. Price, 4 to 5 feet, 35c each.

Thorn, Double White—Has small double white flowers. A highly ornamental variety, on account of both foliage and flowers. Makes a very striking contrast when planted with double scarlet. Strong trees. Price, 4 to 5 feet, 35c each.

Tulip Tree—One of the largest native trees, with large, glossy leaves shaped like a violin, and beautiful tulip-like flowers. Very desirable for planting on lawns, or where trees are desired that will make a rapid growth. Price, 6 to 8 feet, 75c each.

Willow, Babylonica—Our common, well known weeping variety; forms a large, round-headed, graceful tree; requires plenty of room, and where space can be spared is very desirable. Price, 6 to 8 feet, 50c each; 10, \$4.50.

Willow, Kilmarnock—A distinct variety, having reddish shoots and large glossy foliage; grafted at a proper height, about five feet from the ground, it makes a very desirable small lawn tree, having a perfect umbrella-shaped head with the branches drooping gracefully to the ground, and is well suited for planting in cemetery or other small enclosures. Hardy and of a vigorous growth. Price, 2-year, 75c each.

Willow, New American—Grafted about five feet high. An interesting variety, with delicate leaves and slender branches. Price, 50c each.

Willow, Wisconsin—A form of the common, and in all respects similar, except that it is hardy farther north. Price, 6 to 8 ft., 50c each.

New York, October 28, 1913.

Dear Sirs:—I received your shipment of trees today and am much pleased with them. Please send me two more trees like the rest you sent me, as soon as possible, and I will enclose a check for \$18.15 in this letter.

Trusting I will hear from you at your earliest convenience, I am,

Yours truly, OTTO SMITH.



EVERGREENS

IN the following list we confine ourselves to perfectly hardy species and varieties, such as are most useful for general planting. In transplanting Evergreens very much depends on the care of the planter in protecting roots from air and sun. We recommend Evergreens for Spring planting.

Arbor Vitae, American—A well known variety of great value; it forms an upright conical tree of only medium size, and is, all things considered, the finest evergreen for screens, being hardy and more easily transplanted. It grows rapidly, with little care, or rather, by easy management, it soon forms a most beautiful hedge, very dense and very impervious to the sight.

	Each	Per 10	Per 100
12 to 18 in. . .	\$0.15	\$1.30	\$12.00
18 to 24 in. . .	.20	1.75	15.00
2 to 3 feet. .	.35	3.00	20.00

Arbor Vitae, Pyramidal—Of upright, compact habit, resembling Irish Juniper; desirable. Price, 2 to 3 feet, 50c each.

Arbor Vitae, Siberian—Well known and deservedly popular on account of its hardiness, being able to endure the changes of our climate and retain its dark green color; makes an excellent lawn tree, and is of great value for ornamental screens and hedges. Price, 2 to 3 feet, 50c each.

Fir, Balsam—A well known and popular tree; very handsome while young, assuming the upright or conical form; leaves dark green above, silvery beneath; retains its color throughout the severest winters; grows rapidly and every way desirable. Price, 18 to 24 in., 35c each.

Irish Juniper—A very pretty little tree or shrub, forming a neat tapering column of deep green foliage; very hardy and desirable for planting on lawns or in cemeteries where larger evergreens are not admissible. Price, 50c each.

Pine, Austrian—From central Europe. Remarkably robust, with long, stiff leaves and deep foliage; hardy everywhere and valuable as windbreaks, screens, etc. Price, 50c each.

Pine, Scotch—A rapid-growing, hardy variety, with short, light green leaves; valuable for screens and for planting in clumps. Price, 50c each.

Pine, White—Our common White Pine and the handsomest of our native species. Price, 50c each.

Spruce, Koster's Grafted Colorado Blue—A dense-growing, symmetrical, pyramidal tree, with stiff pointed foliage of a beautiful blue. Very valuable, should be in every collection. Price, 12 in., \$1.00 each; 18 in. \$1.25 each; 2 ft., \$2.00 each.



Spruce, Norway—Of very rapid growth and gracefully drooping habit when of some size; dense in structure; regular in outline and perfectly hardy; will bear shearing or cutting well, and hence is well adapted for planting in hedges or screens. Very popular and deservedly so, and is largely planted.

	Each	Per 10	Per 100
12 to 18 in. . .	\$0.15	\$1.30	\$12.00
18 to 24 in. . .	.20	1.75	15.00
2 to 3 feet. .	.35	3.00	20.00

Tree Box—Well known ornament for lawn or porch, if placed in tubs. Foliage bright, glossy green. We can furnish fine stock in pyramid, round or bush form (see illustration). Price, 2 to 3 feet, \$2.00 each; \$3.75 per pair.

STOCK WAS FINE

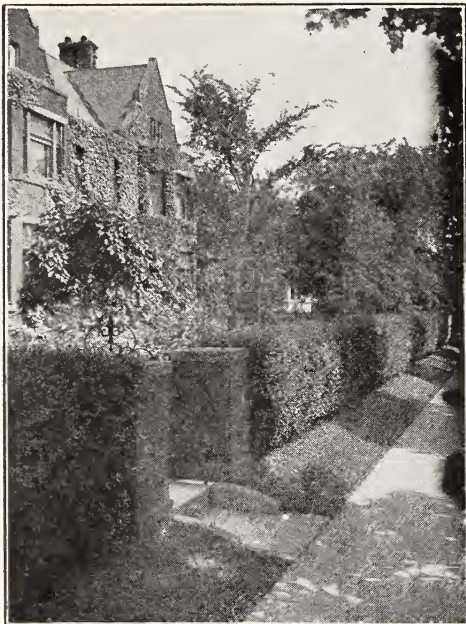
New York, Dec. 2, 1913.

Gentlemen:

Excuse delay, was on my vacation for three weeks. Stock was fine and I got them set in fine shape. Enclosed find \$25.00. Yours truly, H. E. SMITH.

HEDGE PLANTS

HEDGES, aside from their value as protection against animals, as windbreaks and screens, are rapidly supplanting the old-fashioned picket and iron fences, and the most beautiful effects are now possible. Ornamental hedges may be either deciduous or evergreen. Probably the most widely planted of the deciduous hedges is the California Privet. It is faultless in character and trims to any shape.



Hedge of California Privet

Arbor Vitae, American—Very hardy and bears shearing better than any other variety; very dense, fine for windbreaks.

	Per 10	Per 100	Per 1000
12 to 18 in. . . .	\$1.00	\$ 9.00	\$ 85.00
18 to 24 in. . . .	1.50	12.50	110.00
2 to 3 feet. . . .	2.50	22.50	200.00

Barbery, Thunbergii—Dwarf habit, small foliage, changing to red in the Fall; very pretty and for beauty and effectiveness heads the list.

	Per 10	Per 100	Per 1000
12 to 18 in. . . .	\$1.00	\$ 8.00	\$ 70.00
18 to 24 in. . . .	1.50	12.00	100.00

California Privet—The best of all hardy hedge plants, and it is easily kept at any height desired. In many cases the hedge is not allowed to grow over two feet high; in other cases the hedge may grow as high as 4 to 6 feet. It has no thorns, does not sucker from the roots and is not objectionable in any way. A universal favorite.

	Per 10	Per 100	Per 1000
12 to 18 in. . . .	\$0.60	\$4.50	\$25.00
18 to 24 in. . . .	.75	5.00	30.00
2 to 3 feet. . . .	.80	6.00	35.00

Honey Locust—Very hardy, and the cheapest and best for defensive hedges.

Black or yellow. A native tree of large size, rapid growth, and valuable for timber as well as quite ornamental. The flowers are disposed in long, pendulous racemes. White or yellowish, very fragrant and appear in June. Price, 18 to 24 in., \$2.00 per 100, \$15.00 per 1000.

Norway Spruce—Of rapid growth and graceful, drooping habit; one of the best for hedges and screens.

	Per 10	Per 100	Per 1000
12 to 18 in. . . .	\$1.00	\$ 9.00	\$ 85.00
18 to 24 in. . . .	1.50	12.50	110.00
2 to 3 feet. . . .	2.50	22.50	200.00

Osage Orange—Highly esteemed in the West and South. Not hardy enough for the North. Price, 12 to 18 in., \$2.00 per 100, \$15.00 per 1000.

Quince, Japan—Grows very compactly; will submit to any amount of pruning, while the brilliant and showy scarlet flower makes it exceedingly attractive.

	Per 10	Per 100	Per 1000
12 to 18 in. . . .	\$1.00	\$ 8.00	\$ 70.00
18 to 24 in. . . .	1.50	12.00	100.00



FLOWERING SHRUBS



FLOWERING shrubs are most valuable among the ornamentals, whether planted in masses or as single specimens. They are indispensable in the parks, the city gardens or the country home. A judicious selection will give abundance to bloom the entire season.

Almond—One of the most beautiful early flowering shrubs, bearing lovely rosettes all over the bush. Two varieties, pink and dark red. **Price, 2 to 3 feet, 35c each.**

Althea (Rose of Sharon)—Showy flowering shrub, strong, erect growing; large, bell-shaped flowers of striking colors in August and September when most other shrubs are out of bloom. Colors, pink, purple, red and white. **Price, 2 to 3 feet, 25c each; 10, \$2.00.**

Althea, Tree—50c each.

Azalea, Ghent—This class is hardy and will thrive in any good rich garden soil, but will do best in a moist, light soil, in which a liberal quantity of leaf mould is mixed. **Price, 65c each; 10, \$5.00.**

Azalea, Mollis—A beautiful species from Japan, perfectly hardy with large flowers and varied in color, running through all the shades of orange, yellow and carmine. **Price, 50c each; 10, \$4.50.**

Barberry, Purple-leaved—A very handsome shrub with violet-purple leaves and fruit. Makes a fine ornamental hedge. **Price, 20c each; 10, \$1.75.**

Barberry, Thunbergii—Dwarf habit; small foliage, changing to red in the Fall; very pretty. **Price, 25c each; 10, \$2.00.**

Calycanthus (Sweet-scented Shrub)—Very desirable on account of the peculiarity and very pleasing fragrance of its wood. Its foliage is rich and flowers are of a rare chocolate color, with an agreeable odor.

Blossoms in June and at intervals through the Summer. Very desirable. **Price, 25c each; 10, \$2.25.**



Hedge of Barberry Thunbergii



Cornus Elegantissima—One of the finest variegated shrubs; of rapid growth; the leaves are broadly margined with white, while some are entirely white. Price, 25c each.

Cornus Masculata—A small tree, native of Europe, producing clusters of bright yellow flowers early in the Spring before the leaves. Price, 25c each.

Currant—The flowering currants are well known shrubs, and their hardiness, healthiness and early season of blooming are desirable qualities. They attain a size of from four to six feet. Price, 25c each.

Currant, Crimson Flowering (*Sanguineum*)—Small, deep red flowers, blooming in early spring very abundantly.

Currant, Yellow Flowering (*Aureum*)—Bright foliage, small yellow flowers appearing in early spring.

Deutzia, Gracilis—A dwarf variety covered with a profusion of white flowers in June. Fine for pot culture as it flowers freely in low temperature during the Winter. Price, 35c each; 10, \$3.00.

Deutzia, Crenata—A tall growing variety having very double pink flowers. Price, 25c each.

Deutzia, Lemonineii—A hybrid obtained by Mons. Lemoine of France, by crossing the well known *Deutzia gracilis* with *Deutzia parviflora*. Flowers pure white, borne on stout branches, which are of upright growth. Habit dwarf and free-flowering. A decided acquisition. Price, 25c each.

Deutzia, Pride of Rochester—Very large, double white flowers. It excels in size of flower, profuse bloom and vigorous growth; nearly a week earlier than the *Crenata*. Price, 25c each.

Elder, Golden — (*Sambucus Aurea*). When the leaves first appear, they are bright green, but if planted where they will get good sun, they change to a golden green. Best effect is had when planted



Deutzia Lemoinei

with other shrubs when the foliage will appear more conspicuous. Price, 25c each.

Forsythia, Viridissima—This is a very pretty shrub of medium size. Native of China and Japan. The flowers are drooping, yellow and appear very early in the Spring, before the leaves. The best very early flowering shrub. Price, 25c each.

Hydrangea, Paniculata Grandiflora—Hardy, the flowers are immense, greenish-white when first open, changing to pure white and turning with age to pink. Commences to flower in July and remains until November. Price, 25c each; 10, \$2.25.

Kerria, Japonica—A handsome bush with smooth green bark and orange-yellow, double flowers; very pretty and desirable. Price, 25c each.

Lilacs—Well known and beautiful hardy shrubs flowering in May; very ornamental.

Lilac, Red—Purple-red flowers, standard variety. Price, 25c each; 10, \$2.25.

Lilac, Purple—Bluish-purple flowers, standard variety; always good. Price, 25c each; 10, \$2.25.

Lilac, White—Cream-colored flowers. Very fine. Price, 25c each; 10, \$2.25.

Lilac, Charles X—Large, shining flowers; large, single, reddish-purple. Price, 45c each.

Lilac, Lemoine—A choice variety, bearing large clusters of double white flowers. Price, 45c each.

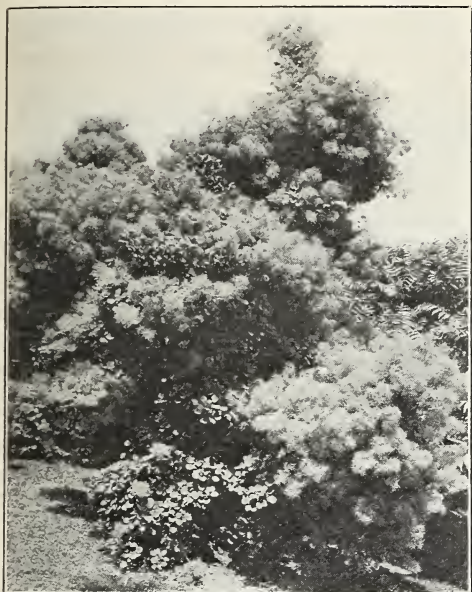
Lilac, Ludwig Spaeth—New and believed to be the finest of the class. Color purplish-red. Price, 50c each.

Lilac, Marie Legraye—Large panicles, white flowers. Valuable for forcing. The finest white lilac. Price, 50c each.

Lilac, Pres. Grevy—Very large blue flowers; largest of all. Price, 45c each.



Hydrangea, "Hills of Snow"



Purple Prince (Smoke Tree)

Lilac, Villosa—Another new species from Japan, with rosy-pink blossoms that change to white. A distinctly new color in lilacs and valuable for late blooming. Price, 50c each.

Paeonies—Fine, hardy plants, rivaling the rose in perfection of bloom and coloring, and requiring little extra care, as they thrive and do well in any soil. Colors; blush, crimson, purple, pink, red, variegated, white and yellow. Price, 25c each; 10, \$2.25; 100, \$20.00.

Paeonia, Named Varieties—We can furnish the Paeonia in fifteen distinct named varieties, ranging in color from soft salmon pink to the deepest shade of purple crimson. Colors include creamy white with carmine center; pink with yellow center, lilac, violet rose, etc. Price 50c each; 10, \$4.00.

Paeonia, Fringe-leaved—Beautiful foliage in thread-like filaments; flowers very double, of dark satin crimson color. Rare and exquisitely lovely. Price, 50c each; 10, \$4.50.

Paeonia, Tree—A handsome flowering shrub growing from six to eight feet; free bloomer; gorgeous flowers of immense size. Price, \$1.50 each

Purple Fringe—A beautiful, distinct shrub, with large bunches of feathery flowers which give the tree the appearance of being covered with a cloud of smoke. Price, 35c each.

Snowball (Guerder Rose)—The well-known sort and a general favorite on account of its large clusters of white flowers in June. Very handsome and desirable, and should be in every collection. Price, 25c each; 10, \$2.00.

Snowball, Japan—A rare and exceedingly beautiful species from Japan, surpassing the common in many respects as its habits are much better, foliage handsomer, flowers whiter and more delicate. Very valuable. Price, 35c each; 10, \$3.00.

Spirea—Hardy and easily grown; of low growth, requiring but little room; long bloomers; in season about three months.

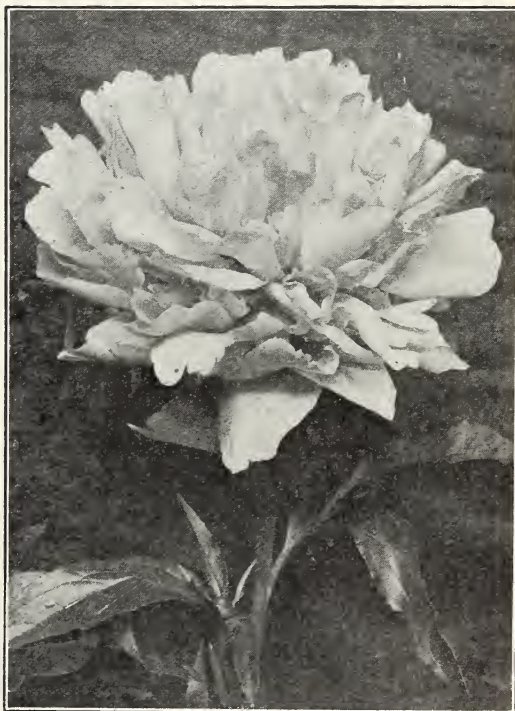
Spirea, Anthony Waterer—New, dwarf Spirea; dark crimson flowers; one of the finest. Price, 25c each; 10, \$2.25.

Spirea, Aurea (Golden)—Foliage green, bordered with a rich golden yellow. In June the branches are covered with a double white flower. Price, 25c each; 10, \$2.00.

Spirea, Billardi—Rose-colored flowers in spikes, blooms nearly all Summer. Price, 25c each; 10, \$2.00.

Spirea, Prunifolia (Bridal Wreath)—Double, daisy-like, pure white flowers. Price, 35c each; 10, \$3.00.

Spirea, Van Houttei—Finest of the Spireas, giving a complete mass of drooping white bloom. Price, 25c each; 10, \$2.00.



Paeony Whitellii (One of our choice named varieties)

Strawberry Tree (Euonymus)—Also called Spindle Tree. A very showy shrub. Its chief beauty consists in its bright red berries, hanging in graceful clusters from the end of the branches until midwinter. Grows to be from six to eight feet high. Price, 25c each; 10, \$2.25.

Syringa, Common—Large white flowers; very hardy. Price, 25c each; 10, \$2.25.

Syringa, Golden—Large, deep yellow flowers; bush hardy. Price, 25c each; 10, \$2.25.

Weigela—Very desirable, hardy, easily grown and great bloomers. As these shrubs grow older, they gradually spread and droop; flowers in June and July; in borders and groups of trees they are very effective; bloom after lilacs in June.

Weigela, Candida—This is the very best of all the white flowering Weigelas. A strong, upright, erect grower; flowers pure white and produced in great profusion in June and continues to bloom throughout the entire summer. Price, 25c each; 10, \$2.25.

Weigela, Eva Rathke—A charming new variety; flower brilliant crimson, a beautiful, distinct, clear shade; flowers twice in one season. Price, 25c each; 10, \$2.25.

Weigela, Rosca—A hardy and beautiful shrub bearing in May a profusion of rose-colored flowers. Price, 25c each; 10, \$2.25.

Weigela, Variegated—Fine, variegated foliage and lasts the entire season; contrasts finely with its rose-colored flowers. Price, 25c each; 10, \$2.25.



Sweet Scented Spirea

RHODODENDRONS

THERE is no more attractive feature of a fine country place than the rich bloom of Rhododendrons in the latter part of May and early June. The huge clusters of flowers in many shades of pink, violet, rose, purple and delicate creamy white give them the right to first rank among Evergreen Shrubs. The pride of every fine English home is a collection of these plants. Price, \$1.00 each; \$10.00 per dozen.

CLUB ORDERS

Get up a Club Order among your neighbors and friends. We will give you for your time and trouble a 3 per cent discount on whole orders sent in. For a very little trouble you can very easily pay for your own order and help your friends to get trees for perhaps one-half of what they have been paying.

We will be glad to send extra Catalogues, Order Sheets, and Envelopes to help you get up a Club Order.



A Bed of Rhododendrons

Hardy Herbaceous Flowering Bulbs, Plants and Vines

BULBS THAT MUST BE PLANTED IN THE FALL



Daffodils

Crocus—These are delicate and tasteful in form and varied and gay in color. Until the flowering of the Hyacinth, and through the most changeable and unpleasant of the spring weather the garden depends almost alone upon the Crocus for its brightness. Plant the bulbs in autumn about three inches apart and cover with two inches of soil. Cover in fall with a little straw or coarse manure to keep the bulbs from being thrown out by the frost. Price, 10 for 15c; 100, \$1.00.

Hyacinths—Among all the bulbs used for winter flowers, the Hyacinth stands foremost. Flowers may be produced by placing the bulbs in a glass filled with water or placed in pots or boxes in soil. For out-of-door culture, plant in the fall three to four inches below surface of soil and cover with straw or leaves before frost sets in. We can furnish in all colors, both single and double. Price, 15c each, \$1.25 for 10, \$10.00 per 100.

Parrot or Dragon Tulips—These belong to the late or May-flowering Tulips, and have immense, attractive flowers of singularly picturesque form and brilliant and varied colors. The petals are curiously fringed or cut, and the form of the flower, especially before it opens, resembles the neck of a parrot. Price 3c each, 25c for 10, \$2.00 per 100.

Single Flowering Daffodils—Are hardy and especially adapted for open-ground planting where under congenial conditions, they thrive and increase for years in beds, borders or naturalized. Valuable also for Winter flowering in pots of soil or bowls of fibre. Prices, 5c each, 40c for 10, \$3.00 per 100.

Tulips—We have a splendid assortment of fine colors, both single and double. Early and late varieties prolong the season of bloom. Price 3c each; 25c for 10, \$2.00 per 100.



Hyacinths



**For Fall or Spring
Planting**

We offer a fine assortment of the best varieties of these useful plants, which are exceedingly valuable on account of their hardiness, easy culture and showy appearance. Most of these will live all winter in the open ground, and bloom freely every year. We name our leading sorts.

Achillea, The Pearl (Yarrow, or Milfoil)—Small, double white flowers, covering the plant in July. Invaluable for borders. One of the prettiest flowering plants and should be in every garden. One foot. **Price, 20c each; 10, \$1.50.**

Anemone, Japonica Rubra (Wind Flower)—Red. Flowers two and one-half inches in diameter, bright purple rose with golden center, borne in great profusion from July to November.

Anemone, Japonica Alba (Wind Flower)—White. A variety of the preceding, flowers pure white with a golden center.

Anemone, Whirlwind (Wind Flowers)—A variety producing double white flowers in great profusion in the autumn. One of the finest fall-flowering perennials. Hardy. **Price, 20c each; 10, \$1.50.**

Dahlias (Spring planting only)—The Dahlia is the grandest autumn flower we have. Nothing is its equal in any respect in September and October. It is in its glory when everything else is faded or fading, and surrenders only to the frost. There are four generally recognized types; Single or Cosmos-Flowered; Pompon, or Bouquet; Large Flowering, or Show; and Cactus. **Price, 20c each; 10, \$1.50.**

Daisy Shasta—A remarkable plant of the Daisy family, producing an abundance of beautiful white flowers. From two to five hundred blossoms in the season is the remarkable record. **20c each; 10, \$1.50.**

Dicentra, or Dielytra (Bleeding Heart)
Eximia—Rose color; foliage fern-like; flowers all summer; valuable; twelve inches.

Dicentra, or Dielytra, Formosa—Bright red flowers in May. Six inches.

Dicentra, or Dielytra, Spectabilis—A handsome, curiously formed, rosy-crimson flower, with white and blue tinged protruding stamen; one of the finest border plants; is quite hardy; well adapted for blooming in the winter; one to two feet. May and June. **20c each; 10, \$1.50.**

Eulalia—Grasses from Japan. Beautiful, hardy and deserving of the highest commendation. Invaluable for the garden, being very showy and easy of cultivation.



Dahlias, Paeony flowered, Cactus and Show



German Iris

Eulalia, Variegata—Handsomely variegated leaves; four feet.

Eulalia, Zebrina—Zebra-Striped Eulalia. One of the most beautiful of ornamental grasses; foliage marked crosswise with bands of white and green. 25c each; 10, \$2.00.

Funkia (Plantain Lily)—A very interesting and beautiful genus, with luxuriant foliage. Invaluable for beds, border, rock-work, and marshy ground. Flowers and foliage distinctly beautiful. Will thrive in almost any position. 20c each; 10, \$1.50.

Gaillardia (Blanket Flower)—A genus of very ornamental hardy plants. Flowers yellow or purple, two inches across, single on naked stems. Very showy. Early summer until autumn. 20c each; 10, \$1.50.

Golden Glow—This new flowering plant is hardy and an excellent grower. It blooms from July to September, and its double flowers are of a deep, golden yellow color. In appearance they are like fine Chrysanthemums and quite as attractive and desirable. We furnish only the root. 15c each; 10, \$1.00.

Hemerocallis (Yellow Day Lily)—Often called Lemon Lily. Very fragrant and one of the best. 15c each; 10, \$1.00.

Iris (German)—Taken as a whole, this group of plants is unparalleled in beauty; nothing in creation can vie with them unless it be the orchid of the tropics. Every shade of color may be found among them, and as they thrive in almost any soil or situation without care, they should be considered indispensable in every garden. For the wild garden, shrubby border, margin of water, rock-work, etc., they are admirably adapted; in fact, hardly any place can be found where these cannot be used to advantage. Price, 20c each; 10, \$1.75; 100, \$15.00.

Iris, Kaempferi (Japanese)—A new group of Iris totally distinct from all others, and without question producing the most gorgeous flowers known not excepting the Orchids. Many of the flowers are ten inches across, with an aggregation of brilliant colors impossible to describe or illustrate. They form strong tufts of lovely bright green foliage from three to four feet in height, surmounted by their massive flowers, both single and double, of every conceivable shade of color, splashed, striped and veined in the most exquisite manner. They prefer sunny, moist situations, planted in heavy loam or clay. They cannot be kept too wet during Summer. Price, 25c each; 10, \$2.00; 100, \$17.50.



Lilies—The Lilies should have a place in every garden as they are entirely hardy, require little or no care and make a grand display; after planting they require very little care, and should not be disturbed for several years, as established plants bloom more freely than if taken up annually. We can furnish all of the leading varieties:

**Auratum, Candidum, Elegans, Har-
rish, Lancifolium,
Longiflorum, Par-
delinium, Tenui-
folium, Tigrinum.**
Each, 25c; 10, \$2.

Lily of the Valley
—The Lily of the Valley is as hardy as any plant can possible be, and when planted in the open ground will increase rapidly. Price, 15c each; 10, \$1.20.

Phlox—These are justly esteemed as the finest of herbaceous plants. They are of dwarf habit, perfectly hardy, of very easy culture, and yield a profusion of bright, showy bloom. They are hardly equaled by any other hardy plant for the decoration of the garden. They come into flower in July and continue a long time. They can be made to bloom in the Autumn by pinching off the shoots about the first of June and again in July. They are of the easiest culture, blooming the same season as planted, and satisfy all who plant them.



Hardy Phlox

Phlox—Very fine; perfectly hardy, beautiful plants. Colors purple, lilac, white and pink. Each, 15c; 10, \$1.20; 100, \$10.00.

Poppy—Showy perennials with large flowers of rich and striking colors.

Poppy, Oriental—Deep scarlet, large, very showy; eighteen inches. June. Each 25c; 10, \$2.00.

Yucca (Spanish Bayonet. Adams' Needle)—Has a fine appearance. The stem is two feet above the ground, covered with creamy white, bell-shaped flowers on laterals, forming a perfect pyramid; valuable for rock work. Each 25c; 10, \$2.00.



Bed of Yucca



Ampelopsis Veitchii (Japan Ivy)

Akebia, Quinta—A rapid-growing climber, with dark green leaves and purple flower. Blooms in early summer. Price, 25c each; 10, \$2.00.

Ampelopsis Veitchii (Japan Ivy)—For covering buildings of brick and stone. Clings tightly to the smoothest surface. Bright green leaves, changing to brilliant colorings in Fall. Price, 25c each; 10, \$2.00.

Chinese Matrimony Vine—Vigorous and hardy climber; flowers bright purple, succeeded by scarlet berries nearly one inch long. Excellent for trellises. Price, 25c each; 10, \$2.00.

Clematis or Virgin's Bower—Nothing can be more satisfactory than vigorous plants of these showy climbers which are adapted to any situation either on verandas, trellis, or as individual specimen pillar plants in the garden. Clematis needs the richest soil that can be given it and is benefited by heavy mulchings in Summer and Fall.

Clematis, Duchess of Edinburg—This is without doubt the best of the double varieties; flowers pure white, deliciously scented. Price, 35c each; 3 for \$1.00.

Clematis, Henryii—Single; the finest white Clematis; very large; fine flowers; grows rapidly; blooms freely during Summer and Autumn. Price, 35c each; 3 for \$1.00.

Clematis, Jackmanni—Single. Very large, deep purple; forms a perfect mass of richest bloom. Price, 35c each; 3 for \$1.00.

Clematis, Mme. Ed. Andre—Flowers medium size, deep crimson-red, velvety; very free flowering. Price, 35c each; 3 for \$1.00.

Clematis, Paniculata—Single white, of extremely rapid growth, with shining green foliage and a profusion of flowers which are small but borne in large panicles; very popular. Price, 25c each; 10, \$2.00.

Clematis, Ramona—A new American seedling; strong, rampant grower, and very hardy. It is a free and perpetual blooming variety, both on the old year's growth and on the wood of the current year. The color of the flower is a deep sky blue and very attractive; the size of the flower is large, from five to nine inches in diameter. Price, 35c each; 3 for \$1.00.

Dutchman's Pipe—A rapid growing vine, with magnificent foliage, ten to twelve inches in diameter, and curious pipe shaped, yellowish-brown flowers. Price, 50c each.

Honeysuckle, Chinese Twining (Japonica)—A well known vine, holding its foliage nearly all winter. Blooms in July and September and is very sweet. Price, 25c each; 10, \$2.00.

Honeysuckle, Hall's Japan—Almost evergreen with pure white flowers turning to yellow; very fragrant, vigorous, covered with flowers from July to December. Price, 25c each; 10, \$2.00.

Honeysuckle, Japan Gold-Leaved (*Brachypoda aurea reticulata*)—Handsome and very desirable variety, the foliage beautifully netted or variegated with yellow. Price, 25c each; 10, \$2.00.

Honeysuckle, Monthly Fragrant (Belgica)—Blooms all summer. Flowers red and yellow, very sweet. Price, 25c each; 10, \$2.00.

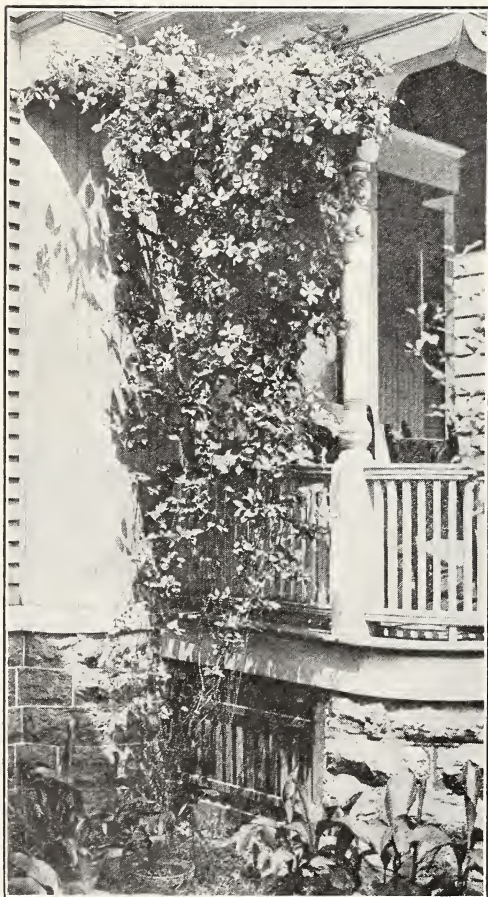
Honeysuckle, Scarlet Trumpet (*Semper-virens*)—A strong grower and produces scarlet, odorless flowers all summer. Price, 25c each; 10, \$2.00.

Ivy—The evergreen Ivies often suffer in winter if exposed to the sun, and should therefore be planted on the north side of the wall or building.

Ivy, American or Virginia Creeper, Wood-bine (*Quinquefolia*)—A very rapid grower, having beautiful dark green foliage, which assumes rich crimson hues in autumn. Prices, 25c each; 10 for \$2.00.

Ivy, English (*Helix*)—A well known old and popular sort. Price, 35c each; 10, \$3.00.

Ivy, Variegated-leaved (*Fol. Variegata*)—With smaller leaves than the preceding, variegated with white. Prices, 35c each; 10, \$3.00.



Clematis, Jackmanni



Wistaria, Purple

Trumpet Vine—A splendid climber, vigorous and hardy, with clusters of large trumpet-shaped scarlet flowers. Blooms in August. Leaves thick and shining, with immense blossoms of gorgeous crimson and yellow color. Price, 35c each; 10, \$3.00.

Wistaria, Chinese Purple—One must see this plant in bloom to appreciate its magnificence. Perfectly hardy; it flowers in Spring in long drooping racemes; very beautiful. Price, 25c each; 10, \$2.00.

Will Buy of Us Hereafter

Ohio, Dec. 9, 1913

Gentlemen:—Enclosed find check to cover Fall account. All your stock proved entirely satisfactory and we hope to have more business dealings with you in the future.

Thanking you for your courtesies, we are

Very truly yours,
WEST BROS.

Doesn't This Sound Reasonable?

We grow our own stock.

We save you agent's commission.

You don't have to pay a share of bad debts.

You get just what you order and when wanted.

You can't buy good nursery stock cheaper.

SEND US YOUR ORDER NOW



ROSE DEPARTMENT

The Rose is a specialty with us and we propagate it on a most extensive scale.

We annually import all new varieties of apparent merit and carefully test them, retaining only such kinds as prove meritorious, and the same course is pursued with regard to novelties originated in this country, so that our collection embraces the best.

We endeavor, in our Catalogue, to present the merits of each variety fairly and faithfully, being cautious not to overpraise, preferring to say too little rather than too much. Recognizing the importance of robust, healthy habit, hardiness and freedom of bloom, combined with beauty of flower, we propagate largely varieties possessing these characteristics, and most strongly and confidently recommend such kinds for general planting; and we also give due attention to those choice and beautiful varieties which are less vigorous or robust, and which therefore require extra care to be grown to perfection. In the hands of the rose lover these moderate growers receive the attention they justly deserve, and amply repay the skill and care bestowed upon them.

Price, 25c each; \$2.25 per 10, except where otherwise noted.

If to be sent by mail add 5c per plant.

Abel Carrier—Of better form and finish than most of the dark sorts. Color velvety crimson, with fiery center.

Alfred Colomb—Brilliant crimson. Very large, full and fine globular form; extremely fragrant.

Americal Beauty—Large, globular; pink, shaded with carmine; delicious odor.

Anna de Diesbach—Rosy carmine; large; very fragrant; good autumn bloomer; vigorous grower; one of the very best.

Baby Rambler—Brilliant ruby-rose; foliage dark and glossy; blooms with the greatest freedom; hardy everywhere; steady and vigorous in growth not being interrupted until after late frosts.

Baby Rambler Pink (Anna Mueller)—Large clusters of brilliant rose-colored flowers in great profusion. A splendid bedding variety.

Baltimore Belle—White, with blush center; full and double; blooms in clusters; slightly fragrant; rapid grower; one of the hardiest and best climbers.

Baron de Bonstettin—Rich, velvety maroon; splendid sort.

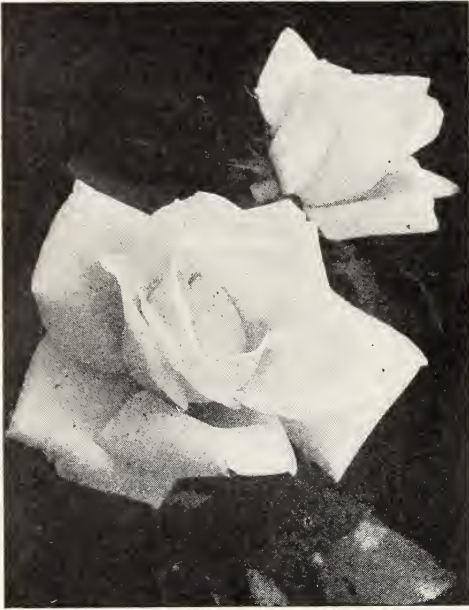
Blanche Robert—White; elegant form; great bloomer; strong grower; extra hardy; new and gives promise of becoming immensely popular.

Caprice—Satin pink, dashed and flamed with white and carmine. Blooms freely at short intervals during the season.

Caroline Marniesse—Creamy white; flowers small and full, borne in pretty clusters; an exceedingly free bloomer, of dwarf habit and especially desirable for borders and for bedding. One of the most hardy of its class.



Baby Rambler



Frau Karl Druschki

Climbing Frau Karl Druschki—Flowers are white and of immense size and will make a most attractive pillar rose. Is vigorous and thrifty and one of the most valuable additions to our collection of climbers. Price, 50c each.

Climbing American Beauty—Color rosy crimson, similar to its pollen parent; flower three to four inches in diameter, finely formed on long stems. Blooms very freely in May and June, and occasionally during the summer. The plant is a strong grower, making shoots ten to twelve feet in a season, and perfectly hardy. Foliage deep glossy green; does not mildew; is not subject to black spots, and remains on until frost. Price, 75c each.

Climbing Victor Verdier—Brilliant carmine; very fragrant; hardy.

Clio—Flower is perfection in form, with fine broad petals, with high full center and is magnificent in all stages. Color delicate satin white, with a light shading of rosy pink in the center.

Coquette de Alps—White; blooms in clusters; fragrant; free bloomer.

Crested Moss—Clear rose; beautifully crested buds; highly scented; extra fine.

Crimson Rambler—The plant is of very vigorous growth, making shoots of from eight to ten feet in a season.

Dorothy Perkins—One of the hardiest of climbing roses. Remarkable vigor, often making a growth of from ten to fifteen feet in a single season.

Duc de Cazes—Extra large full flowers, double and sweet scented. A beautiful shade of violet crimson; large and showy.

Earl of Dufferin—Rich, brilliant, velvety crimson, shaded with dark maroon; large, full, finely formed, delightful fragrance. A vigorous grower. One of the finest dark roses.

Empress of China—It commences blooming early in June and continues until the ground freezes. Very fragrant; of beautiful form; color deep red in the bud, changing to pink and red; nearly double, with a waxy appearance like a tea rose.

Flower of Fairfield—A sport from the notable Crimson Rambler, which it resembles in every respect except that it continues to bloom all summer, producing a marvelous succession of brilliant crimson clusters from spring till late autumn. A rose of great value.

Francis Levet—Color cherry red; flowers large size and well formed. A strong grower and a free bloomer.

Frau Karl Druschki—Snow-white; flowers of immense size and produced with great freedom; very hardy and vigorous; usually strong growers, branching freely; buds egg shaped, long and pointed. Usually admitted to be the hardiest white rose.

Gem of Prairies—Rich carmine; blooms in clusters; fragrant; strong grower; extremely hardy; one of the most desirable climbing roses.

General Jacqueminot—Bright crimson, rich and velvety; buds are magnificent; flowers large and fragrant; desirable for open ground and forcing.

General Washington—Bright shining crimson; flowers large and double. Blooms almost constantly.

Glorie de Dijon—Bronze yellow; large; free bloomer; climbing habit.



Gruss an Teplitz

Gruss an Teplitz—Dark, rich crimson, very bright flowers large, full and sweet; blooms constantly, throwing up fresh buds and flowers, during the whole of the growing season; healthy, hardy and vigorous.

Hermosa—Bright blush; large; very double; constant bloomer.

Hugh Dickson—The most remarkable addition to Red Hybrid Perpetuals in years. Vigorous growing; color brilliant crimson, shaded with scarlet; large and of fine form. Awarded gold medal of National Rose Society.

J. B. Clark—This rose has been shown with flowers five to seven inches in diameter. Color is new; deep scarlet, shaded with darkest crimson. Fragrance is very sweet. This is a wonderful variety. Price 75c each.

John Hopper—Deep rose; very double; very fragrant; large; good; late bloomer.

Julius Margottin—Cherry red; large; very double; fragrant; pretty buds; free grower.

Killarney—Flowers rich, rosy pink, very large. Plant a good grower; free bloomer. Buds are long and pointed. The rose is beautiful beyond description. Price 50c each.

Lady Gay—This new climbing rose originated in America. Is a perpetual source of wonder, yielding large trusses of pink flowers. Is a great novelty; color is a deep, clear, rich, rose pink.

LaFrance—Satin pink; splendid form; exquisitely perfumed; constant bloomer; none better. Requires winter protection and high culture.

LaReine—Silvery peach; large; good form; fragrant; fine autumn bloomer; vigorous grower.

Louis Van Houtte—Bright rose carmine, full and very large. A beautiful rose.

Mabel Morrison—White, very full and double cup-shaped flowers. Petals firm and erect. A very valuable acquisition to any rose bed.

Madame Gabriel Luizet—Beautiful pink; cup-shaped; large, somewhat fragrant, vigorous grower; exquisitely shaded, full and double; splendid.

Madame Plantier—Pure white; full form; a profuse bloomer early in the season; free grower; one of the very best.

Madame Vidot—Cream color; a semi-hardy tea rose; blooms profusely and is most desirable.

Madame Alfred Carrier—Pearly white with slight pink tints in the center. An unusually strong grower and constant bloomer.

Magna Charta—Bright, Clear pink, flushed with violet crimson; very sweet; extra large; fine form; very double and full; free bloomer.

M. P. Wilder—Flowers very large, perfectly double and of good substance. Color bright cherry red shading to crimson. Strong healthy grower.

Marchioness of Londonderry—Flower of large size and perfect form, on stout, erect stems; color ivory white; petals shell shape; free flowering and highly fragrant.

Marechal Neil—Delicate yellow; exquisitely perfumed; lovely buds; has a climbing habit; a charming rose, but it requires careful treatment.

Margaret Dickson—Of magnificent form; white, with pale flesh center; petals very large, shell shaped and of great substance; fragrant; foliage very large, dark green; a vigorous grower.

Memorial (Wichuraiana)—The growth is trailing or creeping, and can be used in covering terraces or trellises. They are hardy and grow well in the poorest soil. The foliage is thick and leathery, shining as if varnished, and keeps fresh and bright until nearly midwinter. The flowers are abundant, and last in perfection for a long time.

Memorial, Manda's Triumph—The flowers are pure white and very double, producing clusters of from ten to twelve on the small side shoots, literally covering the plant and standing well above the foliage.

Memorial, South Orange Perfection—Remarkably free flowering; about one and one-half inches in diameter, soft blush pink at the tips, changing to white.



Paul Neyron

Memorial, Universal Favorite—Flowers are very double, two inches and over in diameter, of a beautiful rose color; very fragrant.

Mrs. John Laing—Color soft pink; flowers large, finely shaped and very fragrant; blooms late in the autumn.

Paul Neyron—Shining pink, clear and beautiful, double and full, finely scented; free bloomer and one of the largest of roses, often measuring five inches across.

Persian Yellow—Deep bright yellow; small but handsome. A very early bloomer. The finest hardy, double yellow rose.

Pius X—Dark carmine; large, handsome, strong grower; very attractive and a fine variety.

Prince Camille de Rohan—Deep velvety crimson; large; fragrant; good bloomer; free grower; one of the finest roses cultivated.

Queen of Prairies—Rosy red; blooms abundantly in June; vigorous grower; one of the most hardy and desirable climbing roses grown.

Red Moss—Deep red; very mossy; good grower; fine bloomer.



Yellow Rambler

Rosa Rugosa (Japanese Rose)—Bushes when full grown three to five feet; sturdy; covered with handsome glossy, green foliage and clusters of beautiful single flowers, which emit a delightful odor. Bloom throughout the summer and are covered during the autumn and winter with red seed pods.

Rosa Rugosa, Rugosa Red—Beautiful, rosy crimson flowers.

Rosa Rugosa, Rugosa White—A remarkably free bloomer with flowers of purest white; delicate well formed buds.

Soleil d'Or—Hardy; orange-yellow, blended with reddish gold and pink. Hardy everywhere; plants strong and robust; flowers large and globular.

Souvenir de Malmaison—Fawn color; fine form, continuous bloomer.

Sunset—Rich saffron and orange; constant bloomer.

Sweet Briars, Amy Robsart—Lovely, deep rose; the buds before opening are most graceful, of true Sweet Briar type; an abundant bloomer, robust and free.

Sweet Briars, Penzance—Beautiful soft tint of copper with a peculiar metallic lustre; the base of each petal a bright yellow; very free flowering, with a delicious perfume from foliage and flower; a wonderful grower; shoots pendulous.

Sweet Briars, Lord Penzance—Soft shade of fawn or ecru, passing to a lovely lemon yellow in the center, sometimes toned with a most delicate pink; a good grower and abundant bloomer; very sweet-scented.

Victor Verdier—Carmine, shaded with purple; splendid autumn bloomer; fine form; one of the very best. Requires winter protection.

White Rambler—One of the Ramblers which have grown in favor so rapidly. Flowers are well formed, and though small are produced in so great profusion as to present an immense mass of bloom.

Yellow Rambler—Habit of growth similar to Crimson Rambler. Flowers borne in immense clusters; color a clear, decided yellow. One of the finest pillar or porch plants imaginable.

TREE ROSES

The Tree Roses are grafted on hardy rose canes four to five feet high, are tree shaped, and when in full bloom are objects of beauty, making handsome plants for the lawn. They need winter protection.

We can supply White, Red, Pink and Crimson colors, very fine, strong trees that will bloom the first year. 50c each; doz., \$5.00. The Tree Baby Rambler—50c each; doz., \$5.00.

Insect Enemies and How to Destroy Them

We embody herewith brief but plain descriptions of the various insects which attack different classes of trees and plants, and in each case the best known remedy. Our directions can be relied upon implicitly, and we need only ask our friends and customers to follow the directions in each case to the letter.

DIRECTIONS FOR PREPARING THE REMEDIES.

Paris Green or London Purple—These poisons are used either in solution or dry form. In solution one pound is mixed with from 100 to 300 gallons of water, the strength depending on the plant sprayed and the insects to be destroyed. The poison should first be mixed with enough water to form a paste, after which the full quantity may be added. It is always best to add one or two pounds of lime for each pound of the green, as the danger to foliage will be much lessened thereby. Paris Green alone is sometimes applied in dry form. It is best, however, to mix each pound with ten pounds of flour or plaster. The liquid is much less objectionable and we would in all cases recommend it.

Kerosene Emulsion—Take common bar soap, one-half a pound, water one gallon, and kerosene two gallons. Shave the soap into the water, then beat the whole until all the soap is dissolved; add the soap liquid, boiling hot, to the kerosene, and churn for ten minutes by pumping it back into itself; when cool, the emulsion should have the consistency of thick cream or soft butter, this depending somewhat upon the kind of soap used.

INSECTS AFFECTING THE GRAPE.

The Flea Beetle.

This small, steel blue insect, appears in early spring, and at once begins eating the tender foliage. After eating a short time the female beetle deposits small yellow eggs on the foliage. These soon hatch into small larvae, which continue to work of destruction.

Remedies—Spray with Paris Green, one pound, and one and one-half pounds lime to 200 gallons of water, as soon as the beetles are noticed. Two applications of this solution at intervals of a week or ten days, will usually destroy all the insects.

The Rose Bug.

It makes its appearance early in the summer, devouring flowers, young fruit and leaves. The beetle is about half an inch long and of a brown color.

Remedies—The best results have followed the use of Pyrethrum, which should

be applied in solution at the rate of one ounce to two gallons of water.

INSECTS AFFECTING THE APPLE.

The Coddling Moth.

The little white caterpillar, whose effects are so familiar to everyone, is the larvæ of a small, nocturnal, gray moth. The moth deposits her eggs on the blossom end of the fruit. As soon as the eggs hatch the larvæ eats its way into the young fruit; the rest of the story is well known to everyone.

Remedies—Spray the trees with Paris Green or London Purple at the rate of one pound to 250 gallons of water, add one and a half pounds of lime, first when the flowers are falling and again when the fruit is the size of peas.

The Canker Worm.

This measuring worm eats the green portion of the leaf, giving the tree a brownish color, as though scorched by fire. The worms appear in early spring, and when full grown are an inch long.

Remedies—Spray the trees when the leaves are one-third grown, with Paris Green solution, one pound to 200 gallons of water, add one and a half pounds of lime. Usually one spraying will be sufficient, but if the worms appear to be on the increase a second application will be advisable.

Apple Tree Tent-Caterpillar.

The large silken nests made by this insect are familiar to everyone. The caterpillars appear in May or June, and in five or six weeks have attained their full size.

Remedies—Cut out and burn the nests as soon as they are seen, taking the precaution to do this in the morning when the caterpillars are all in. This, together with one or two sprayings of Paris Green Solution, having a strength of one pound to 200 gallons of water, and one and a half pounds of lime, will effectually rid the trees of the pest.

The Apple Aphis.

Apple trees are often attacked early in the season by this insect. The lice are quite small and green in color. By sucking the juices from the young growth they greatly interfere with the functions of the latter, and as a result the tree has a sickly, yellow appearance.

Remedies—Spray with kerosene emulsion at the rate of one gallon to twenty of water, as soon as the lice appear. Repeat the treatment in eight or ten days if necessary. A decoction made by soaking over night four or five pounds of tobacco stems, or refuse tobacco of any kind, in five gallons of water, will also be found an excellent remedy against the lice.



The Oyster Shell Bark Louse.

There are frequently seen on the trunks, branches and twigs of the apple tree, small, whitish shells, resembling in shape those of an oyster. Under these shells are numerous small lice busily engaged in sucking the sap from the tree.

Remedies—Scrape the trees thoroughly in spring before the leaves appear and then paint the trunk and large limbs with a thick solution made by dissolving one quart of soft soap in half a gallon of hot water. Two ounces of crude carbolic acid added to this will also increase its efficiency. Make no further treatment until the middle of May, when kerosene emulsion, one gallon to twenty-five gallons of water, should be applied. It is always best to apply the emulsion soon after the lice hatch.

INSECTS AFFECTING THE PEACH.

The Black Aphis.

Numbers of this small, shiny black insect may be seen in the spring on the leaves and twigs of the peach. The lice often do a great deal of damage above ground as well as below on the roots.

Remedies—For the form above ground, spraying with kerosene emulsion, one gallon to thirty-five gallons of water, is the most effective remedy. The first spraying should be made as soon as the lice appear; if necessary, this should be followed by others at intervals of a few days until the trees are rid of the pest. Under the ground the lice are best destroyed by digging in tobacco stems or dust among the trees. The tobacco is scattered on the ground to the depth of half an inch or more, then dug in with a spade or fork.

Peach Yellows.

This is one of the few diseases as to which very little is positively known, except its effects. It usually makes its appearance about mid-summer, causing the foliage of the tree to turn yellow, and soon thereafter the body and large limbs will throw out a considerable number of weak, yellow leaved suckers. If the tree is loaded with fruit it will be under size, little or no flavor, and ripen prematurely.

Remedies—The moment that you feel sure that a tree is affected with yellows, dig it up root and branches and burn it, and plant any tree that you like, other than a peach tree, in its place.

INSECTS AFFECTING THE PEAR.

The Pear Tree Slug.

This insect attacks the leaves, eating away the green portion so that nothing remains but the parchment-like tissues and veins. It appears usually the latter part of June and again in August.

Remedies—Spraying with a simple solution of milk of lime, made by mixing two pounds of lime in twenty gallons of water,

will often rid the tree of this pest. The first application should be made as soon as the slugs are noticed; if necessary, others should follow in a week or ten days. By adding a little Paris Green, say one ounce to the lime of milk, the latter will be made more effectual.

The Scurfy Bark Louse.

This insect resembles the Oyster Shell Bark Louse already described as attacking the apple.

Remedies—The same as for Oyster Shell Bark Louse.

Pear Blight.

It is understood by the best authorities, both practical and scientific, that the cause of the disease is absolutely unknown, and there is but one certain remedy, namely cut out the blighted parts promptly on appearance of the disease and burn them.

INSECTS AFFECTING THE PLUM.

The Curculio.

This little grub originates from eggs deposited by a small, dirty gray beetle, when the flowers are still small.

Remedies—The most reliable way now known of dealing with Curculio is spray it with Paris Green. The first application should be made when the flowers are falling, using a solution made by mixing one pound of Paris Green in 200 gallons of water, and adding one and a half pounds of lime. In a week or ten days make a second application, and follow this by another after the lapse of same length of time.

The Plum Tree Aphis.

This insect resembles the one occurring on the peach, and like it may be destroyed by spraying with kerosene emulsion, made by mixing one gallon of the concentrated emulsion in twenty gallons of water.

Black Knot.

The most scientific as well as practical fruit growers in the country are by no means agreed as to the cause of Black Knot on plum and cherry trees, but they are entirely agreed as to the only known remedy, namely: Just as soon as the Black Knot appears cut it out, removing the branch at least two inches below where the knot appears. Burn the affected parts and follow this method promptly, thoroughly, and in most cases, you will have exterminated the disease before it has done serious damage.

INSECTS AFFECTING THE CHERRY.

The Cherry is injured by plant lice, resembling those occurring on the peach or plum. The Pear Tree Slug also attacks the leaves, while the fruit is infested by the Plum Curculio.

Black Knot.

Cherry trees are affected with Black Knot the same as the plum trees, and the same remedies should be used.

INSECTS AFFECTING THE CURRANT AND GOOSEBERRY—The Currant Worm.

The perfect form of the worm is a small fly, which lays its eggs on the leaves in early spring. As soon as the eggs hatch, the worms eat circular holes in the foliage. As the worms increase in size, they become more voracious, often riddling the leaves.

Remedies—As soon as the worms are seen, spray the plants with a solution made by mixing one ounce of Hellebore in two gallons of water.

The Currant Aphis.

The insect attacks the leaves, causing

them to curl and turn brown. The lice are usually abundant in early summer, but as hot weather advances they disappear.

Remedies—Spray with kerosene emulsion, one gallon to twenty gallons of water, as soon as the lice are noticed.

INSECTS AFFECTING THE ROSE.

The Rose Bug—The same as sometimes attacks the grape. **Remedies**—The same.

The Green Aphis—The same that attacks the apple. **Remedies**—The same.

The Black Aphis—The same that attacks the peach and other trees. **Remedies**—The same.

SPRAYING

Once a plant is attacked by disease it cannot be cured in the same sense that an animal can be. Spraying aims not to cure diseased plants but to protect them from two classes of enemies, insects and fungus (fungi, plural). The purpose of spraying is then to render plants immune against the insects or fungi to be feared. The spray mixture must be injurious to the enemies it is designed to forestall.

There are three main considerations in spraying. An effective spraying machine, one adapted to the character of the work; a mixture that will defeat the enemy; and a knowledge of the proper time to spray. The first can be secured through the manufacturers whose advertisements appear in fruit-growing magazines, the other two are explained in detail in the following paragraphs.

The principle underlying spraying is to cover the foliage or wood of plants with a medium in which the fungus will not grow, in the case of the plant parasite, or one which will poison the leaf-eating insect or kill the sucking insect by destroying its body. Both diseases and destructive insects work rapidly and a delay of a few days may make the remedy ineffective. Of all factors making for success in spraying promptness is the most important.

We advise careful attention to these five points: (1) Know the enemy you are attacking; (2) study the remedy, its principles—how it acts; (3) secure the proper appliance for using the remedy; (4) prepare the spray mixture carefully; (5) apply it thoroughly.

Ammoniacal Copper Carbonate

Copper Carbonate.....	5 ounces
Ammonia	2 quarts
Water	50 gallons

Prepare and keep in large bottles.

Arsenite of Lead

Lead Arsenite.....	1 pound
Water	150 gallons

Arsenite of Lime

This is much cheaper than Paris Green and equally efficient. It will not burn the tenderest foliage. Formula (for 800 gallons):

Arsenic, White.....	2 pounds
Sal Soda.....	8 pounds
Water	2 gallons

Boil all together for 15 minutes or as long as it takes the arsenic to dissolve. The result is a concentrated solution that can be diluted as needed. One pint together with 2 pounds of lime added to a barrel of water makes an insecticide as good as Paris Green.



Bordeaux Mixture (Standard formula)

Copper sulphate (Blue Vitrol).....	4 pounds
Lime (fresh)	4 pounds
Water	50 gallons

Use about half of the water to dissolve the copper sulphate. Do this by suspending the crystals near the surface in a bag of coarse material. Put the lime in another vessel, adding small amounts of water from time to time until the lime is thoroughly slaked. Then add the remainder of the fifty gallons (about 25 will have been used for the copper sulphate, 1 or 2 for slaking the lime; use the remainder—23 or 24 gallons—for diluting lime).

Have a large vessel capable of holding fifty gallons and into this pour at the same time, the lime solution and the copper sulphate solution. The spray tank or barrel may be used for this purpose. The best mixture is made by straining the solution as they are poured. This can be done either with a coarse cloth or fine meshed wire screen.

Copper Sulphate Solution

Copper sulphate.....	1 pound
Water	25 gallons

Since this is injurious to foliage, it should only be used before the foliage appears. It acts as a general germicide and disinfectant.

Hellebore

White Hellebore, fresh.....	1 ounce
Water	3 gallons

Kerosene Emulsion

Hard Soap	½ pound
Water, boiling	1 gallon
Kerosene	2 gallons

First dissolve the soap in hot water, add the kerosene and stir or churn thoroughly until the mixture becomes white and creamy. Dilute the solution four times for San Jose; twenty times for Aphids.

Lime-Sulphur

The lime-sulphur solution seems destined to take the place of the Bordeaux mixture and many other copper sprays that have been in use a long time.

(For the best information about Lime-Sulphur send for Penn. Expt. Sta. Bulletin 92, July, 1909; or their latest bulletin on this subject.)

Lime, fresh	15-20 pounds
Sulphur, flowers	15 pounds
Water	50 gallons

Place lime in an iron kettle over fire and slake with about 8 to 10 gallons of water. Add the sulphur and salt then thoroughly. Boil the mixture for from forty to sixty minutes and stir constantly. Do not add any more water than is needed to keep the mixture from sticking and burning. Strain the mixture and add enough hot water to make 50 gallons. Always apply hot. After the mixture has been allowed to cool, crystals form which can only be dissolved by heating.

Before using Lime-Sulphur we advise a thorough understanding of it. This can be obtained from the bulletins of numerous Experiment Stations and from fruit-growing magazines.

Paris Green Solution

Mix 1 pound of Paris Green in 200 gallons of water, stir well and keep well stirred while it is being applied.

Soluble Oils

These require only the addition of water before applying. Use only those recommended by good authority. They take the place of Lime-Sulphur and have not its disadvantages.

Tobacco Solutions

These can be prepared by boiling tobacco stems in water, two gallons to each pound of stems. Good for sucking insects.

Grafting Wax

A good grafting wax is made as follows: Resin, 4 parts; Bees' Wax, 2 parts; Tallow, 1 part. All by weight. This material should be carefully melted together, mixed and when hot, poured into a pail of cold water. As soon as it is hard enough to handle, the lump should be pulled until it becomes light colored. In doing this the hands should be greased, care being taken not to use too much grease

SPRAY CALENDAR

PLANT	INSECTS OR DISEASES	REMEDY	FIRST APPLICATION	SECOND APPLICATION	THIRD APPLICATION	REMARKS
APPLE	Blackspot Canker	Bordeaux, double strength	Immediately after leaves fall	Three weeks later		
	Bud Moth	Lime-Sulphur	Just as buds are swelling	Arsenate of Lead twice as buds open, once after petals fall		
	† Codling Moth and Scab	Paris Green, 1 lb to 100 gallons of water	Within one week after blossoms fall	Week or ten days	Two weeks later	{ A fourth application will pay. If bitter rot is present, a fifth application should be made.
	Curculio. See Plum	Arsenate of Lead	After blossoms fall	Repeat in ten days	10 days later	
	Flathread Borer	Dig out worms in fall and spring with knife. During growing season whitewash base of trunk or apply Carbon Bisulphide.				
	† Green Aphids	Lime-Sulphur	When the leaves are off the tree			
	San Jose Scale	Lime-sulphur or soluble oils as recommended	Early in November	In the spring before buds burst	the San Jose scale cannot be destroyed in one treatment. If only a few trees of an orchard are affected, burn them off	
	o Twig Borer	Lime-Sulphur	When buds swell in spring	Arsenate of Lead in summer when the worms appear		{ If Woolly Aphids is present on roots, dip stock in 1-15 solution of recommended prepared oil compound, applied May to August or remove the soil and treat with finely ground tobacco placed around base of tree; use 2 to 3 lbs. to a tree.
	Woolly Aphids, Oystery Shell and Scurfy Scale	Soluble oils as recommended. Kerosene emulsion, 1 part to 12 parts water	Use when young first hatch in early spring	Repeat in ten days	For summer treatment use 10 per cent kerosene or dilute Lime Sulphur	{ Watch the plant closely in spring and begin spraying as soon as worms are discovered. Other Currant Pests removed by cutting out and burning the infested stems.
	* Black Aphids	Kerosene emulsion or whale-oil soap. Soluble oils as recommended.	When the insects appear and before they curl the leaves	Bordeaux when fruit has set	{ Just as fruit begins to ripen, with copper acetate 8 oz. to 50 gals. of water for first spraying. Prune and burn unperfected fruits. Thin green fruit till they are separate. Prune trees so as to admit much sunlight.	{ Fourth application is needed. Use arsenate of lead if flea beetles are present.
CHERRY	† Brown Rot	Bordeaux	Just before blossoms open	After the blossoms fall		{ Best to add arsenate of lead for any biting insects.
	† Slug	Arsenate of Lead, Paris Green or dust with lime, road dust or ashes. When the insects appear.				
CURRENT	Aphids	10 % Kerosene emulsion	Early before leaves roll	Ten days later. Hellebore for worms; quassia and tobacco for Aphids. Repeat second time when necessary.		
GOOSEBERRY	Mildew	Potassium sulphide, 1 oz. to 2 gals. water	Just as buds burst	Repeat at intervals of ten days till fruit is picked		
GRAPE	Mildew and Rot	Bordeaux, or dilute Lime-Sulphur	When buds first swell	Repeat in ten days	Repeat in ten days	
PEACH	Leaf Curl and Rot	Lime-Sulphur	Just before the buds open	After blossoms fall	Repeat in two weeks	
	Mildew	Lime-Sulphur	Before buds burst			
PEAR	Peach Tree Borer	Dig out worms in fall and spring with a knife. During growing season whitewash base of trunk.				
	Blister Mite	Sulphur-Lime, 1 gallon to 10	When leaves are off tree	Add more soap than the formula calls for. Repeat 10 to 12 days later if necessary		
	Cottony Scale	Kerosene emulsion	When insects become cottony (May)	While the last blossoms are falling. Use a vermorel nozzle. Do not trench the trees		
PLUM	Scab	Lime-Sulphur or Bordeaux, with Arsenate of Lead	Just before blossoms open	Repeat in ten days	10 days later recommended solution if Aphids is present	{ If scale insects are present, use lime-sulphur or recommended compound.
	Blight and Curculio	Arsenate of Lead, 1½ lbs to 50 gallons water	After blossoms fall			
RASPBERRY	Fungous Diseases	Bordeaux or Lime-Sulphur or Soluble oils recommended	When buds begin to swell	When leaves are opening. Cut out all rusted canes	Two weeks later (when not in flower) repeat second	Dilute the mixture to half the strength given in formula—100 gallons of water instead of 50
DEWBERRY						

*Same treatment for Peach

†Same treatment for Plum

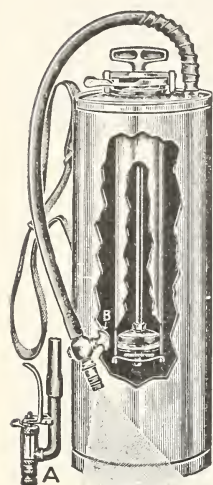
‡Same treatment for Pear

oSame treatment for Cherry

40 Styles and Sizes of Auto-Sprays

The Auto Spray No. 1. Compressed Air Sprayer

Upwards of 200,000 in use



The Auto-Spray No. 1 is the strongest and most simple in its working parts of any compressed air sprayer. Two pumpings of about 15 strokes on the plunger will discharge the contents under high and constant pressure. After pumping, the operator has nothing to do but direct the spray.

USES

For applying all insecticides, fungicides, disinfectants, cattle fly oil, whitewash, and cold water paint.

PRICES

PATENTED. "Auto-Spray" No. 1A, brass tank with stop cock, \$7.50

"Auto-Spray" No. 1B, brass tank with "Auto-Pop" \$8.00
 "Auto-Spray" No. 1C, galv. tank with "Stop cock" 5.00
 "Auto-Spray" No. 1D, galv. tank with "Auto-Pop" 5.50
 Extension pipe, 2 ft. length, solid brass, each..... .50
 Elbow extension, Fig. 319, solid brass..... 1.30
 Strainer, Fig. 366, solid brass..... 1.00
 Two-Row Attachment, Fig. 170, solid brass..... 1.50
 Torch..... 1.00
 "Auto-Pop" No. 1, Fig. 217, without hose or fittings 1.50
 "Auto-Pop" No. 1, with hose and fittings..... 2.00

The Auto-Spray No. 40

Hand Lever Pump. Complete Outfit

Correctly designed on mechanical principals with every unnecessary part eliminated.

USES

For handling whitewash, cold water paint, insecticides, fungicides, and all solutions.

CONSTRUCTION

Tank. Heavy brass or galvanized steel.

Plunger. Brass, 1½-inch dia. 3 to 4½-inch stroke as desired. The plunger operating in connection with the air chamber ensures a greater reserve capacity than usual in this size machine. Plunger style pump. Graphite packing adjustable from outside by adjusting 2 bolts.

Valves. Brass ball valves. Suction pipe fitted with brass strainer.

Agitation. Mechanical and effective. Operated from the handle. The top casting on tank has broad flange which prevents the solution from slopping over. **Equipment.** 8 ft. 4-ply ¾-in. duck hose, 8 ft. iron extension, lever shut-off and latest pattern Vermorel nozzle.

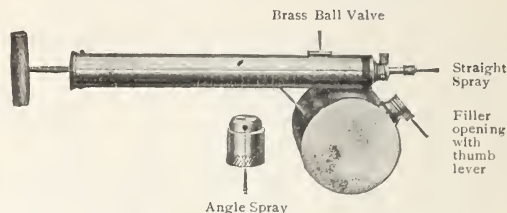


Fig. 369. Capacity about 1 qt.

The Auto-Spray No. 37 Continuous Sprayer

WILL HANDLE ALL SOLUTIONS

Pump cylinder. Twelve inches by one and half inches diameter. Retinned by special process where it comes in contact with solution, and is non-corrosive.

PRICES

All tin.....	\$.80
Tin pump and galvanized reservoir.....	.90
tin pump and brass reservoir.....	1.25

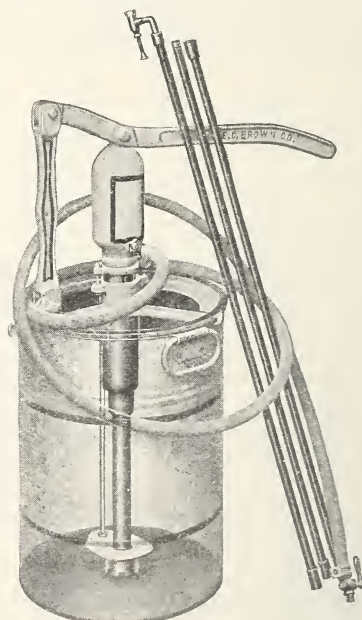


Fig. 370.

Net Weight 35 lbs., (With Truck), 50 lbs.
 Shipping Weight, crated, 45 lbs., (with Truck), 75 lbs.
Capacity. Eight and Twelve gallons.

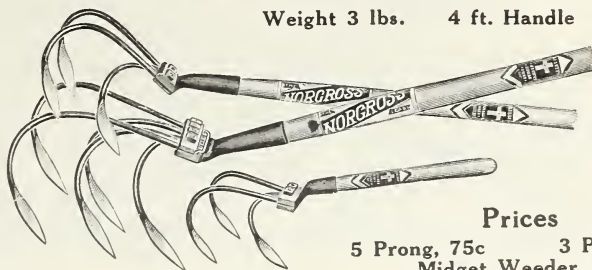
PRICES

Auto-Spray No. 40A, brass tank, cap. 8 gals.....	\$17.00
Auto-Spray No. 40B, galv. tank, cap. 8 gals.....	14.00
Auto-Spray No. 40C, brass tank, cap. 12 gals. with truck—20-inch wheel.....	21.00
Auto-Spray No. 40D, galv. tank, cap. 12 gals. with truck—20-inch wheel.....	18.00



5 Prong Cultivator-Hoe

Weight 3 lbs. 4 ft. Handle



Prices

5 Prong, 75c 3 Prong, 50c
Midget Weeder, 25c
Universal Connection,
for Plow, 10c



THE Most useful of all Garden Implements. Close cultivation is essential; and "NORCROSS" Cultivator-hoes work closer to plants without injuring them, than any other tool known, leaving the soil level, loose untrampled.

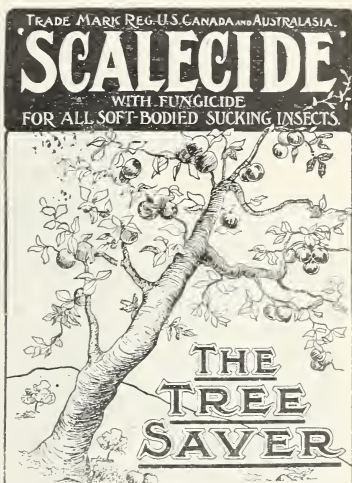
Detachable, Steel Prongs, Malleable Head, finish Black with Silver Bronzed Shovels, handles finest quality white Ash, richly labeled.

The "Norcross" is the only Cultivator-hoe with Detachable Ferrule (Pat'd) which provides for its use as a wheel plow attachment, by means of our Universal Connection.

Do You Know All About "Scalecide"?

If you do, it is more than we do, for we learn something every day, but what we **know, we DO know**; and no man, however high his official position, can disprove our statements. He may know more about some things than we do, but he does not know more than we do about "SCALECIDE."

- 1st. Will kill more scale than Lime-Sulfur.
- 2nd. Will destroy the spores of more fungi in Winter than Lime-Sulfur.
- 3rd. Will kill more eggs and larvae of insects wintering on your trees than Lime-Sulfur.
- 4th. Will show greater invigorating effect on tree-growth than Lime-Sulfur.
- 5th. Will make your spray-pump last twice as long as where Lime-Sulfur is used.
- 6th. Will not take the hair off the horses, the skin off your hands, or burn the eyes like Lime-Sulfur.
- 7th. Will spray twice as many trees until they drip, gallon for gallon, as Lime-Sulfur.
- 8th. Will cut your labor bill for spraying in two.
- 9th. Will cost less for enough material to spray your orchard than the average man pays for Lime-Sulfur.
- 10th. That the action of "SCALECIDE" is immediate, while Lime-Sulfur may require a month or more to be fully effective.



PRICES FOR "SCALECIDE."

50-gal. bbls., 50c per gal.,	\$25.00	5-gal. can in case	\$3.25
30-gal. jacketed tins	15.00	1-gal. jacketed cans	1.00
10-gal. (2.5-gal. cans to case)	6.00	1-qt. cans	.40

A BEAUTIFUL LAWN—A FINE GARDEN

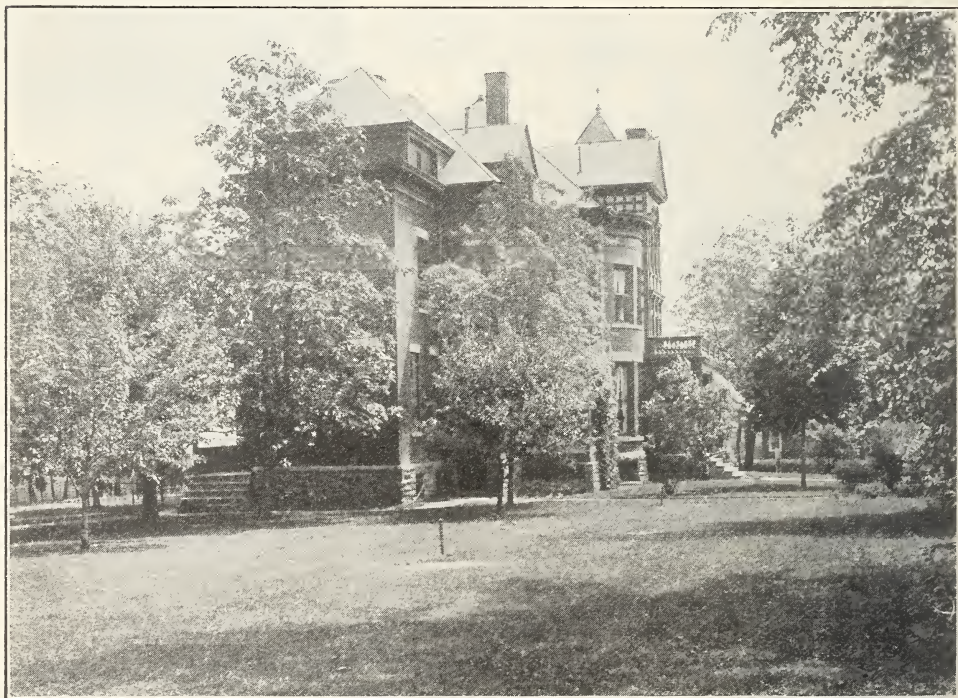
SHEEP'S HEAD BRAND MANURE

Insures a velvety, green, quick-growing lawn; also double the yield of the garden and produce earlier and better vegetables, by feeding the soil with **Sheep's Head Sheep Manure**. Rich in nitrogen, phosphoric acid and potash. Pulverized, ready to apply. Also will show quick results on flower beds, shrubbery and orchard. Large sized barrel, \$4, 100 lb. bag, \$2.25, freight prepaid east of the Missouri River. Send for folder.



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